

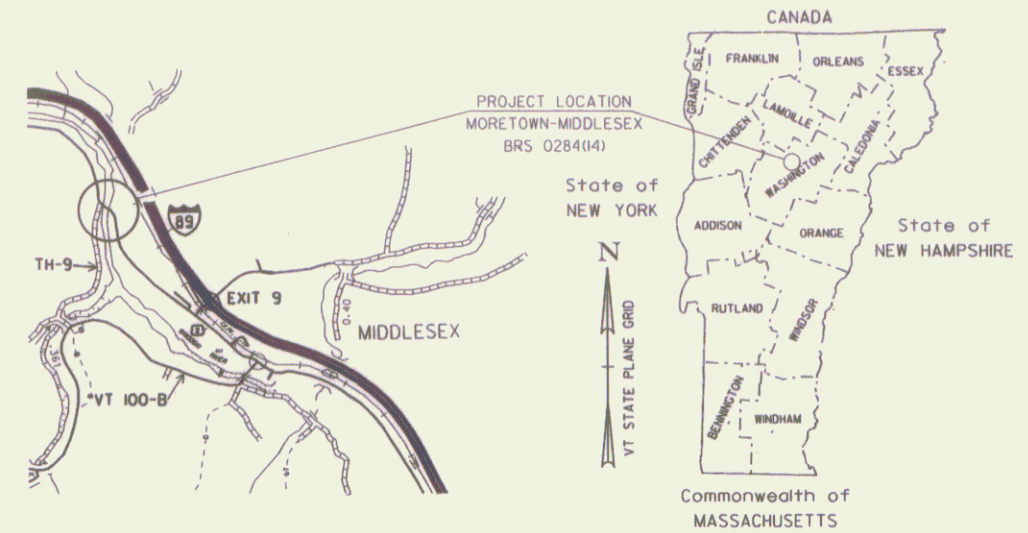
SEE SHEET 2 FOR INDEX OF SHEETS AND LIST OF STANDARDS

R. O. W. PLANS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWNS OF MORETOWN-MIDDLESEX
COUNTY OF WASHINGTON



BEGIN M. A. Z. #1
TH 9 106+39.00 CL

END M. A. Z. #1
TH #9 106+03.07 CL LENGTH 35.13'

BEGIN RELINQ. NO. 1
266+53.42 37.86' RT

US. RTE. 2
MAJOR COLLECTOR
BEGINNING AT A POINT IN THE TOWN OF MORETOWN ALONG U.S. RTE. 2 APPROXIMATELY 3.075 MILES EASTERLY OF THE DUXBURY-MORETOWN TOWN LINE AND EXTENDING EASTERLY 0.52 MILES TO THE MORETOWN-MIDDLESEX TOWN LINE, IT THEN EXTENDS EASTERLY OF THE MORETOWN-MIDDLESEX TOWN LINE 0.085 MILES.

LENGTH OF ROADWAY 964.52 FT. = 0.183 MILES
LENGTH OF BRIDGE 285.48 FT. = 0.054 MILES
LENGTH OF PROJECT 1250.00 FT. = 0.237 MILES
LENGTH OF ROW PROJECT 1512.00 FT. = 0.286 MILES

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES REMOVAL OF A TEMPORARY BRIDGE AT BRIDGE #50 AND CONSTRUCTION OF A NEW, TWO SPAN BRIDGE, INCLUDING RELATED CHANNEL WORK, APPROACHES ON A NEW ALIGNMENT, GRADING, DRAINAGE, SUBBASE, PAVEMENT, AND GUARD RAIL.

END R. O. W. PROJECT
BRS 0284(14)
STA. 276+12.00
25.54' RT

THE FOLLOWING RIGHT OF WAY PLAN SHEETS PERTAIN DIRECTLY TO THE ACQUISITION OF LAND AND RIGHTS NECESSARY TO CONSTRUCT THIS TRANSPORTATION PROJECT. SHEETS REGARDING SPECIFIC CONSTRUCTION DETAILS ARE NOT INCLUDED IN THIS RECORDED SET.

Lines shown on this plan as existing property lines P/L are believed to be accurate but should not be relied upon for purposes unrelated to the State of Vermont's acquisition of land and rights for this project.

ALL DRIVES AS INDICATED ON PLANS ARE SUBJECT TO PERMITS PURSUANT TO TITLE 19 SECTION III, V.S.A

QUALITY ASSURANCE PROGRAM: LEVEL

CONVENTIONAL SYMBOLS

COUNTY LINE	— — — — —
TOWN LINE	— — — — —
LIMITS OF ACCESS	— — — — —
POINT OF ACCESS	X
FENCE LINE	X X X X X
STONE WALL	— — — — —
TRAVELED WAY	— — — — —
GUARD RAIL	— — — — —
RAILROAD	— — — — —
SURVEY LINE	— — — — —
CULVERT	— — — — —
POWER POLE	⊕
TELEPHONE POLE	⊕
TREES	⊕
CONTROL OF ACCESS	— — — — —
PROPERTY LINE	— — — — —
R.O.W. TAKING LINE	— — — — —
SLOPE RIGHTS	SR
TOP OF CUT	— — — — —
TOE OF SLOPE	— — — — —

FRANK J. MALNATI JR.
R. O. W. AGENT

SURVEYED BY : R. MOREAU
SURVEYED DATE : 9/91

DATUM
VERTICAL NAVD 83
HORIZONTAL NAD 88

BEGIN R. O. W. PROJECT
BRS 0284(14)
STA. 261+00.00 33.00' RT



END RELINQ. NO. 1
TH #9 103+44.61 26.02' RT

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

APPROVED: RICHARD TETREAU, DATE 6-28-08
Director of Program Development

APPROVED: ROBERT M. WHITE, DATE 6-28-08
Chief of Right of Way

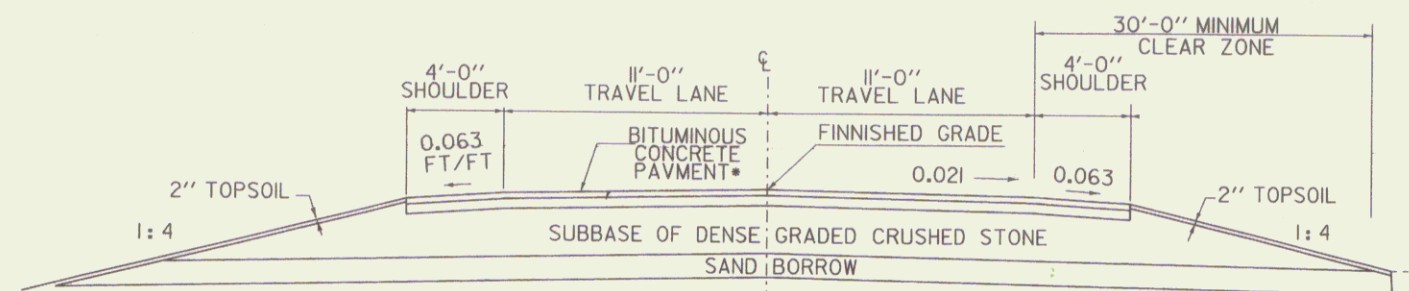
MORETOWN-MIDDLESEX
BRS 0284(14)
ROW SHEET 1 OF 20 SHEETS

Pin # 78F219

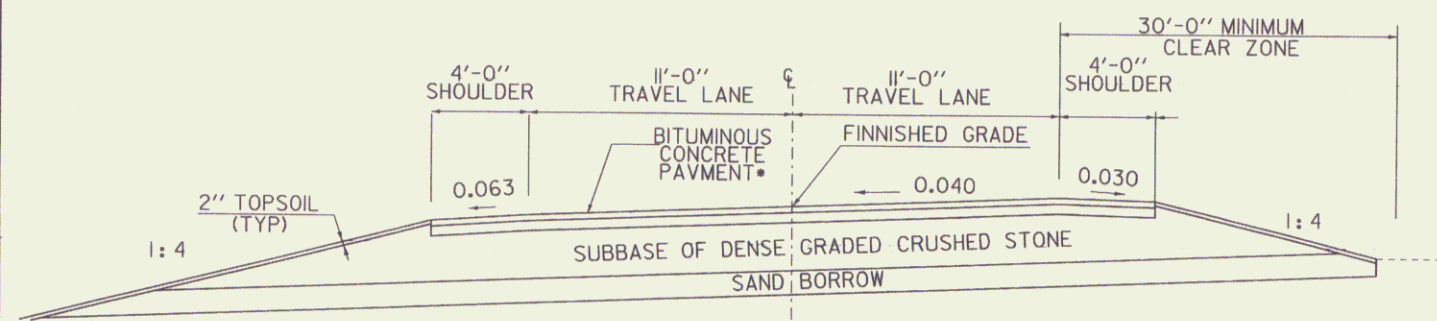
US. RTE. 2 TYPICAL SECTIONS

MATERIAL ITEM	THICKNESS TOLERANCES
BITUMINOUS CONCRETE PAVMENT* (TOTAL DEPTH)	$\pm 1/4"$
SUBBASE OF DENSE CRUSHED STONE	$\pm 1"$
SAND BORROW	$\pm 1"$

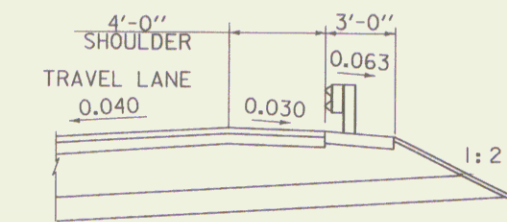
- 1 1/2" BITUMINOUS CONCRETE PAVMENT*, TYPE III
- 1 1/2" BITUMINOUS CONCRETE PAVMENT*, TYPE III
- 2 1/2" BITUMINOUS CONCRETE PAVMENT*, TYPE I
- 2 1/2" BITUMINOUS CONCRETE PAVMENT*, TYPE I
- 2 1/2" SUBBASE OF DENSE GRADED CRUSHED STONE
- 12" SAND BORROW



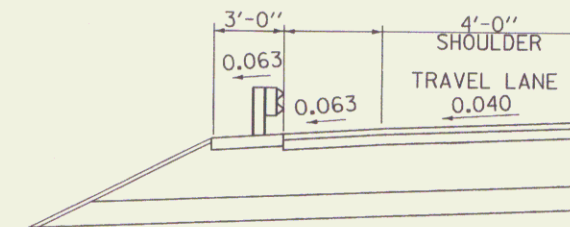
NORMAL SECTION



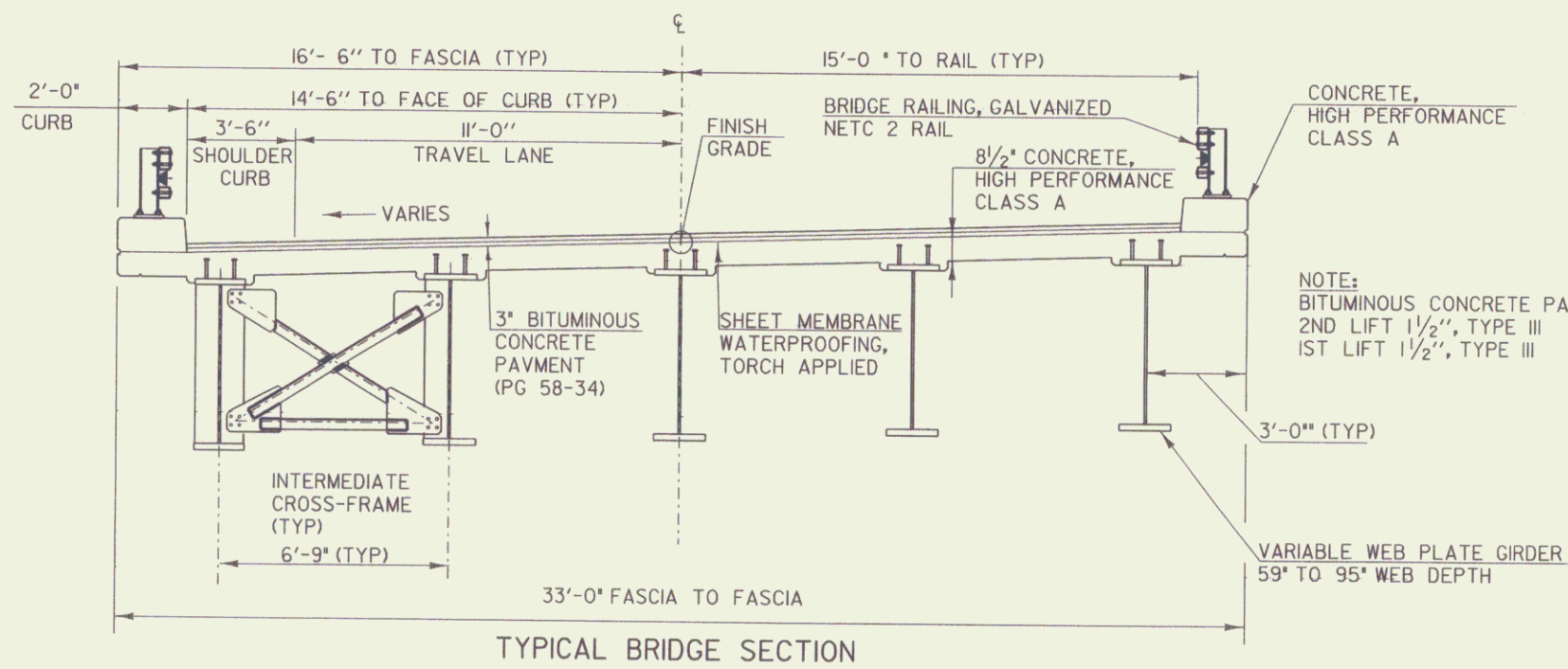
MAXIMUM BANKED SECTION 0.040 FT/FT



DETAIL OF RT 2 GUARD RAIL ON HIGH SIDE OF BANKED SECTION



DETAIL OF RT 2 GUARD RAIL ON LOW SIDE OF BANKED SECTION



TYPICAL BRIDGE SECTION

NOTE:
BITUMINOUS CONCRETE PAVMENT (PG 58-34)
2ND LIFT 1 1/2", TYPE III
1ST LIFT 1 1/2", TYPE III

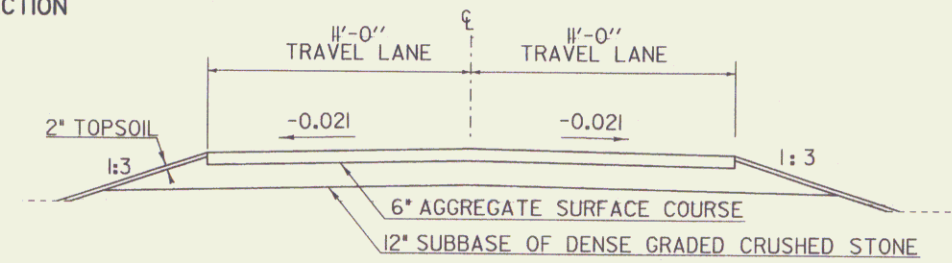
SEEDING FORMULA RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREeping RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

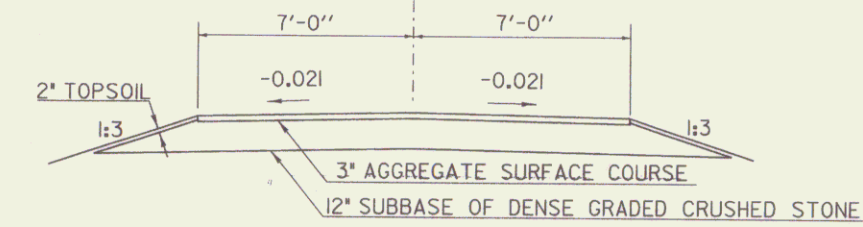
GENERAL NOTES

- SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
- FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).
- AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.
- HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.
- TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- MARKER POSTS: TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.
- SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B - 5.
- PAY LIMITS OF SAND BORROW: WHEN USED IN CONJUNCTION WITH UNDERDRAIN - SEE STANDARD SHEET D - 2.
- TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.015 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER.
- SOLID ROCK EXCAVATION, DRILLING AND BLASTING OF SOLID ROCK: SEE STANDARD A-60

* BITUMINOUS CONCRETE PAVMENT (PG 58-34)



TH 9 NORMAL SECTION



DRIVE NORMAL SECTION

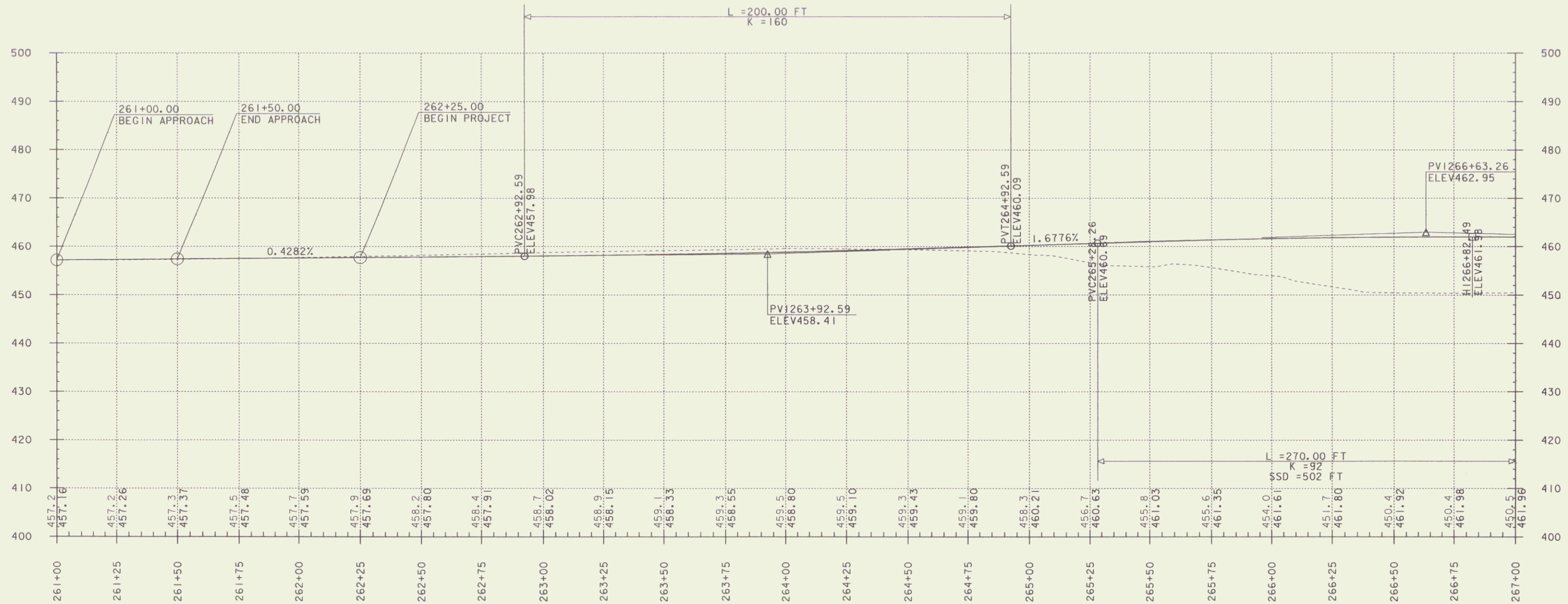
STA. 263+00.00 LT & STA. 265+34.00 RT

TYPICAL SECTIONS SHEET 1

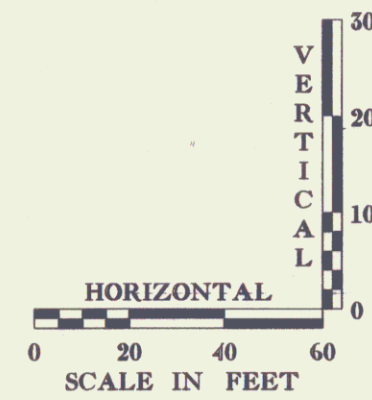
PROJECT NAME:	MORETOWN-MIDDLESEX	PLOT DATE:	03-JUN-2008
PROJECT NUMBER:	BRS 0284(14)	DRAWN BY:	G. ROKES
FILE NAME:	/78f219/str2/sf219frm.dgn	CHECKED BY:	S. SCRIBNER
PROJECT LEADER:	EVANS-MONGEON	ROW SHEET:	2 OF 20
DESIGNED BY:	S. SCRIBNER		

NOT TO SCALE

US 2 PROPOSED PROFILE



NOTE: ELEVATIONS SHOWN TO THE TENTH ARE EXISTING GROUND
ELEVATIONS SHOWN TO THE HUNDRED ARE FINISH GRADE

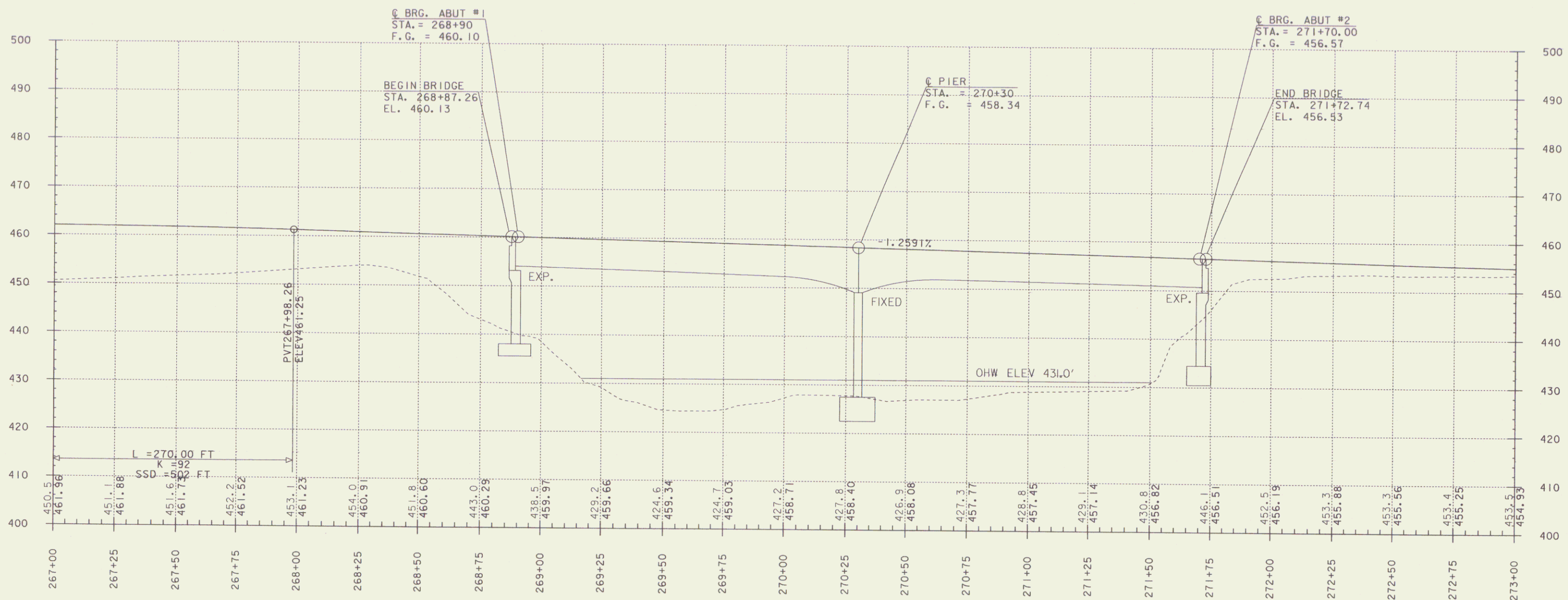


US 2 PROFILE SHEET #1

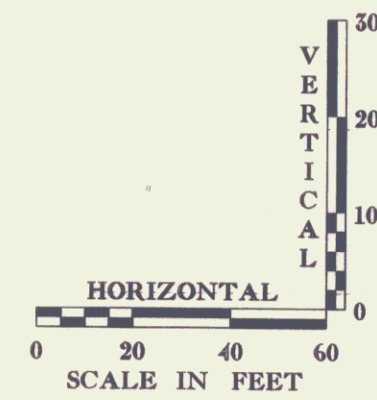
PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(I4)

FILE NAME: 78f219/str/s78f219s3.dgn	PLOT DATE: 03-JUN-2008
PROJECT LEADER: M. EVANS-MONGEON	DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER	CHECKED BY: S. SCRIBNER
	ROW SHEET 3 OF 20

US 2 PROPOSED PROFILE



NOTE: ELEVATIONS SHOWN TO THE TENTH ARE EXISTING GROUND
ELEVATIONS SHOWN TO THE HUNDRED ARE FINISH GRADE

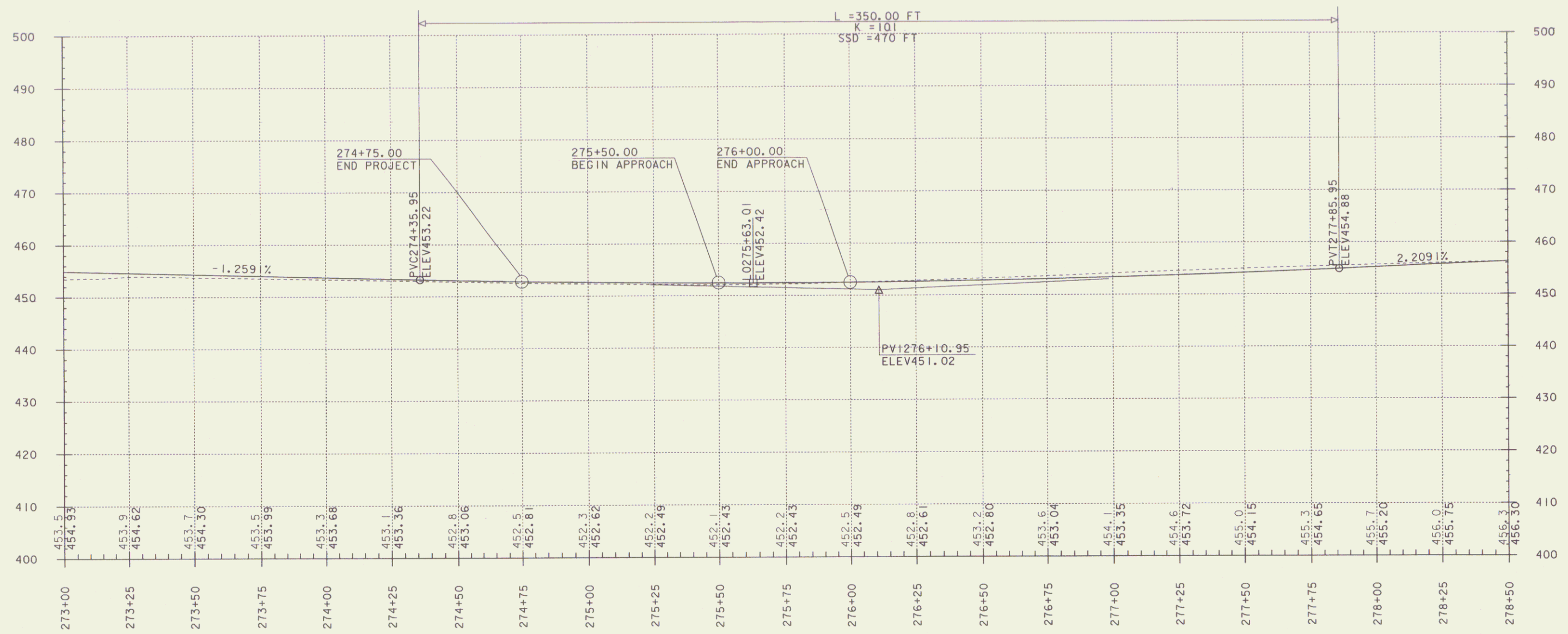


US 2 PROFILE SHEET #2

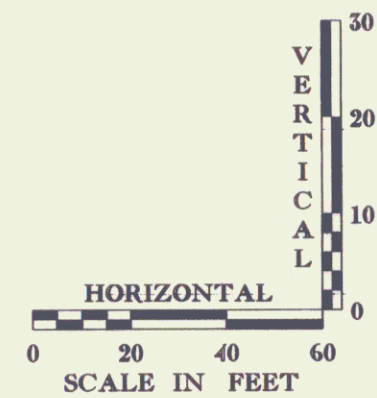
PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78f219/str/s78f219xs3.dgn	PLOT DATE: 03-JUN-2008
PROJECT LEADER: M. EVANS-MONGEON	DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER	CHECKED BY: S. SCRIBNER
	ROW SHEET 4 OF 20

US 2 PROPOSED PROFILE



NOTE: ELEVATIONS SHOWN TO THE TENTH ARE EXISTING GROUND
ELEVATIONS SHOWN TO THE HUNDRED ARE FINISH GRADE

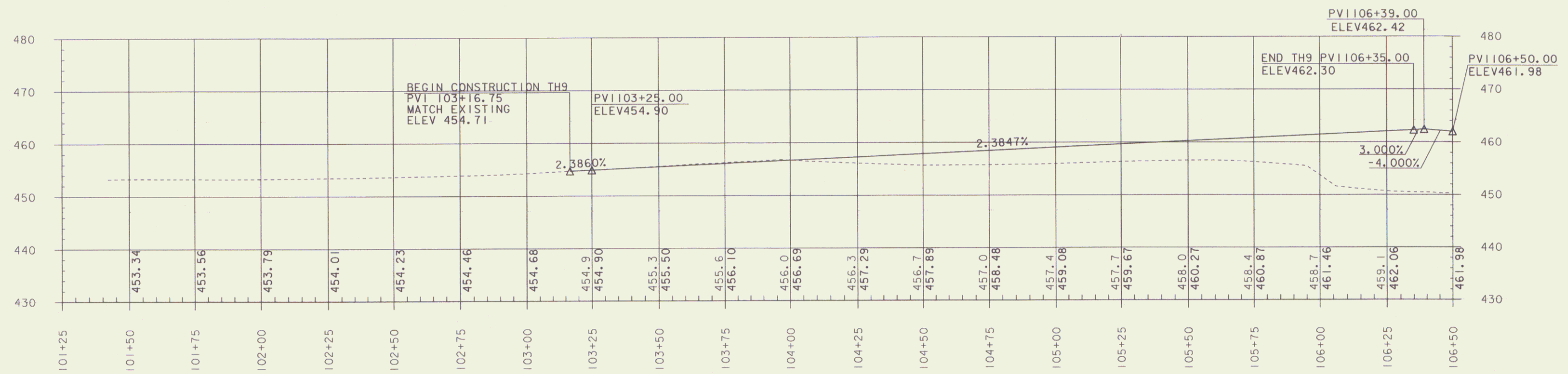


US 2 PROFILE SHEET #3

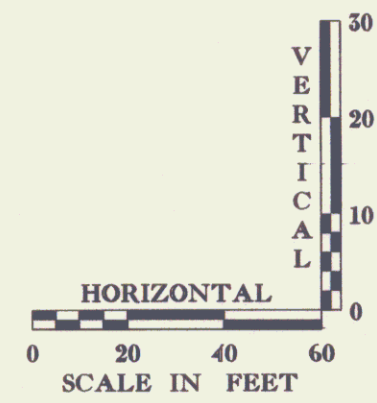
PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78f219/str/s78f219xs3.dgn PLOT DATE: 03-JUN-2008
PROJECT LEADER: M. EVANS-MONGEON DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER CHECKED BY: S. SCRIBNER
ROW SHEET 5 OF 20

TH 9 PROFILE



NOTE: ELEVATIONS SHOWN TO THE TENTH ARE EXISTING GROUND
ELEVATIONS SHOWN TO THE HUNDRED ARE FINISH GRADE



TH 9 PROFILE

PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(I4)

FILE NAME: 78f219/str/s78f219xs3.dgn
PROJECT LEADER: M. Evans-Mongeon
DESIGNED BY: S. SCRIBNER
PLOT DATE: 03-JUN-2008
DRAWN BY: L. DUQUETTE
CHECKED BY: S. SCRIBNER
ROW SHEET 6 OF 20

GPS CONTROL POINTS

HVCTRL #1

STANDARD DISK STAMPED
Laskey
N = 653522.44
E = 1590034.23
ELEV. =

TO REACH FROM THE JUNCTION OF US ROUTE 2 + VT ROUTE 100B IN MIDDLESEX VILLAGE PROCEED SOUTHWESTERLY ALONG ROUTE 100B FOR 0.6 MI (1.0 KM) TO A DRIVEWAY SOUTH, THENCE SOUTH ALONG SAID DRIVE FOR 0.1 MI (0.2 KM) TO THE HOUSE OF DAVID LASKEY AND SITE OF MARK WSW OF THE HOUSE. OWNERSHIP, DAVID LASKEY STATION MARK, STATE OF VERMONT SURVEY MARK DISK IN THE TOP OF A 30CM DIAMETER CONCRETE MONUMENT FLUSH WITH GROUND SURFACE. IT IS 69.60 FT (21.21 M) MAG AZ 245-30 FROM NW CORNER OF LASKEY HOUSE, 155.10 FT (47.27 M) MAG AZ 41-41 FROM A COMBO POLE (NO NUMBER), 45.90 FT (13.99 M) MAG AZ 119-51 FROM AN ARTESIAN WELL, AND WITNESSED BY A CARSONITE WITNESS POST.

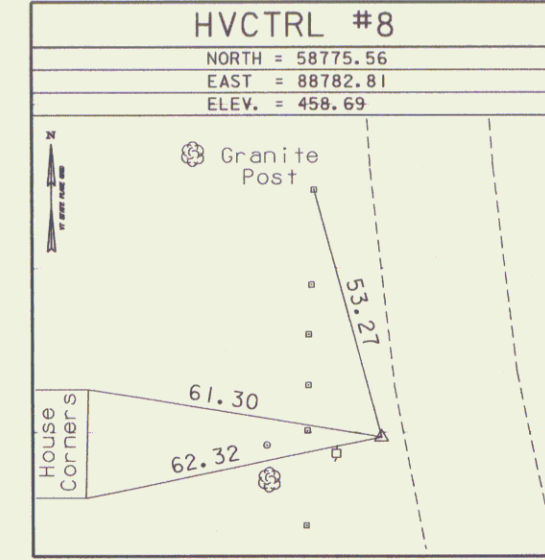
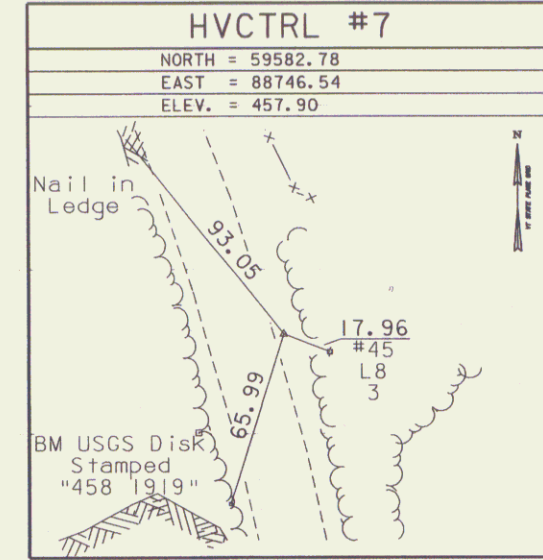
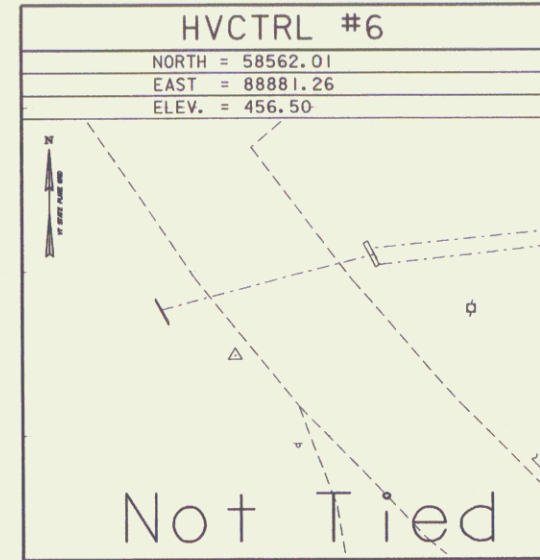
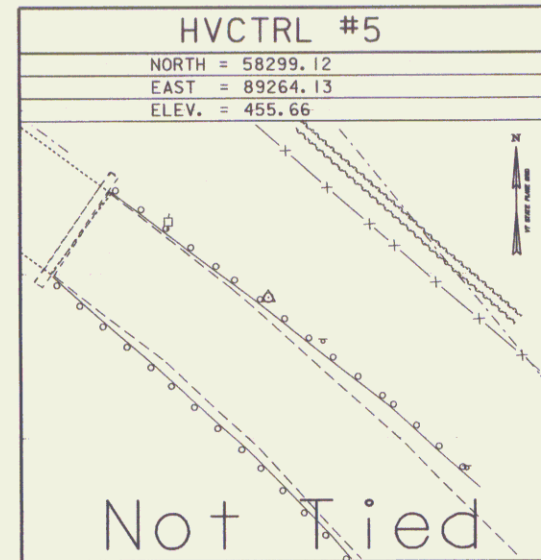
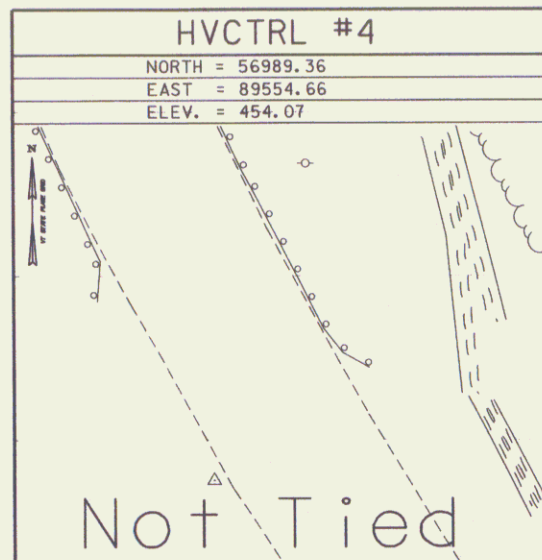
HVCTRL #2

STANDARD DISK STAMPED
Westover
N = 655416.06
E = 1591067.44
ELEV. = 561.29

TO REACH, FROM THE JUNCTION OF U.S. ROUTE 2 AND VT ROUTE 100B SOUTH, PROCEED WESTERLY ON U.S. ROUTE 2 FOR 0.6 MI (1.0 KM) TO THE MARK ON THE SOUTH SIDE OF U.S. ROUTE 2. IT IS 28.2 FT (8.6 M) MAG AZ 238-21 FROM THE CENTERLINE OF U.S. ROUTE 2, 102.5 FT (31.2 M) MAG AZ 336-40 FROM A COMBO POLE (NO NUMBER), 69.20 FT (21.09 M) MAG AZ 129-13 FROM A 6-INCH WHITE BIRCH, 172.7 FT (52.6 M) MAG AZ 147-18 FROM COMBO POLE NO. 23/22/1A, AND WITNESSED BY A CARSONITE WITNESS POST.

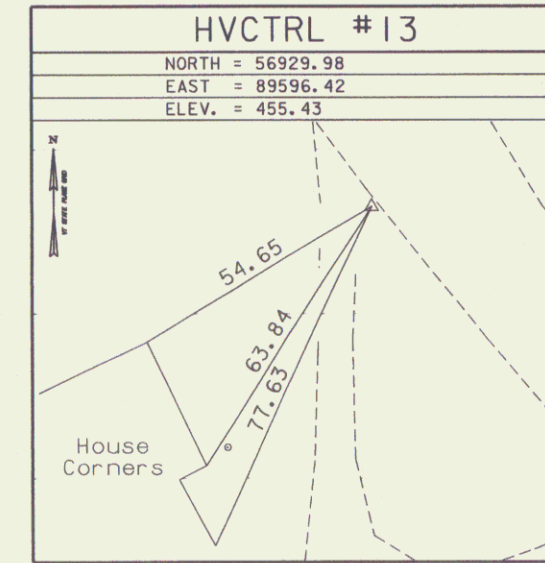
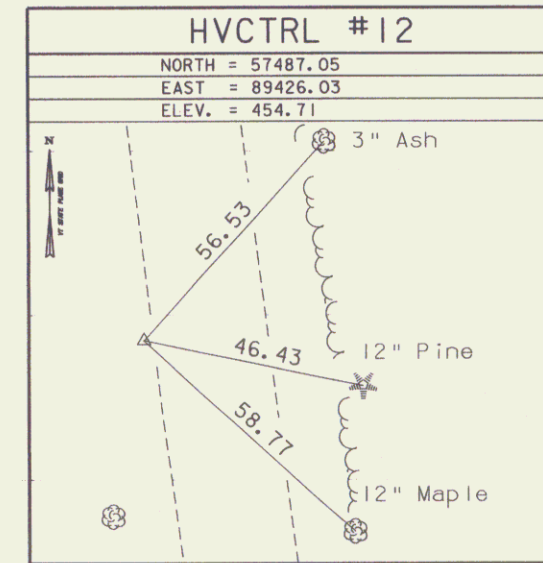
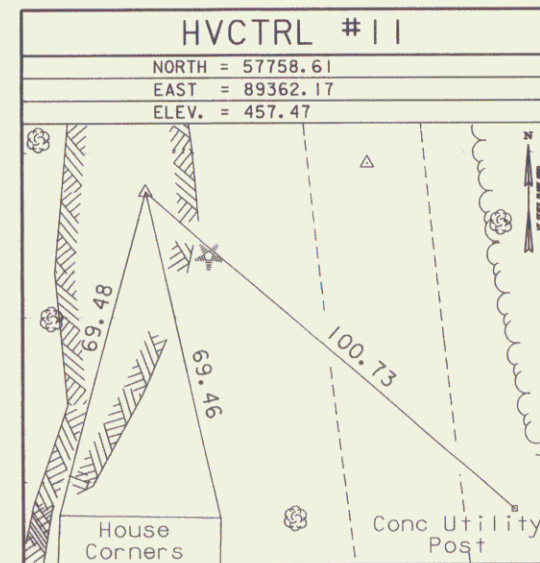
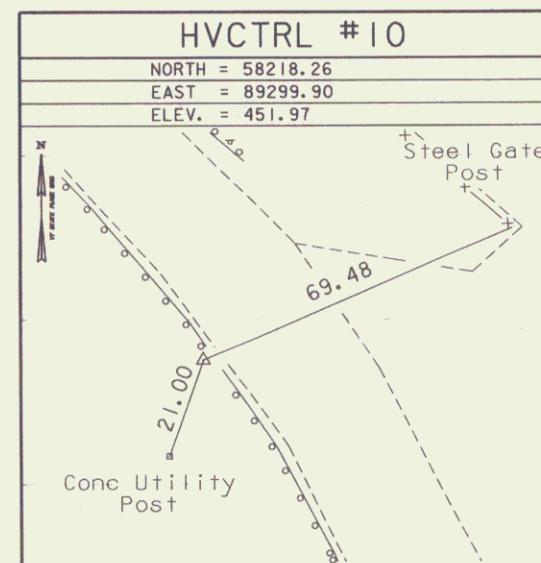
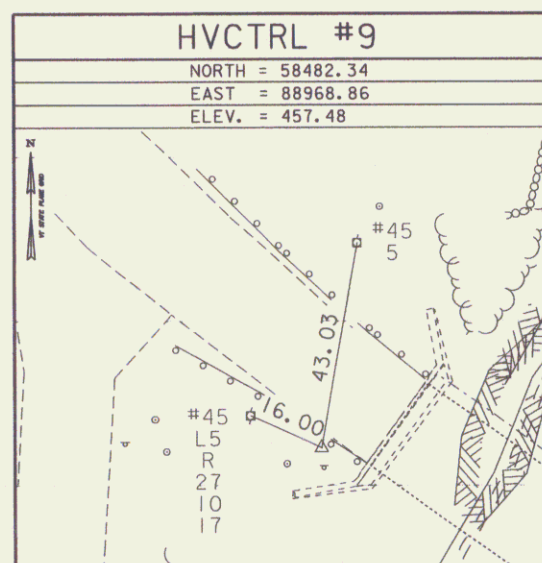
- DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT
- TO ALLOW THE STATE PLANE COORDINATES TO FIT THE AGENCY DESIGN PLANE, SUBTRACT 600,000 FROM THE NORTHING AND SUBTRACT 1,500,000 FROM THE EASTING

TRAVERSE TIES



• MAIN TRAVERSE COMPLETED 09/04/91 by R. Moreau P.C. & L. Orvis & R. Bullock &

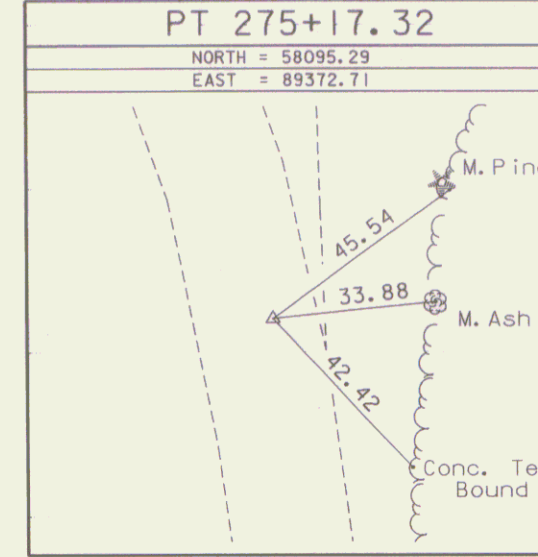
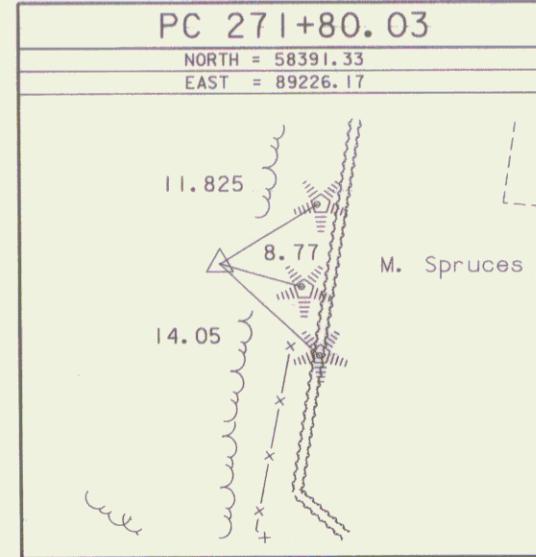
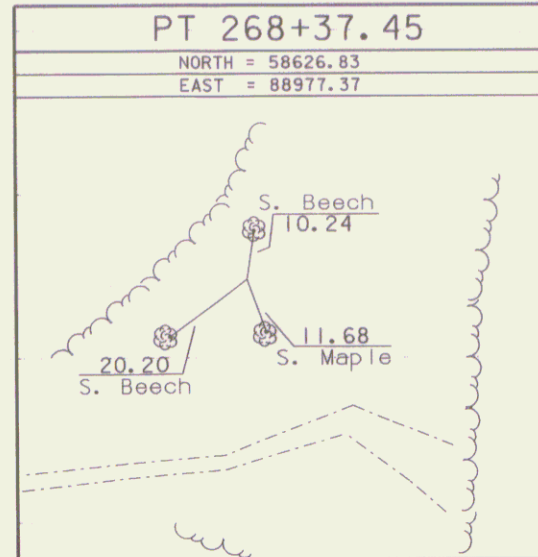
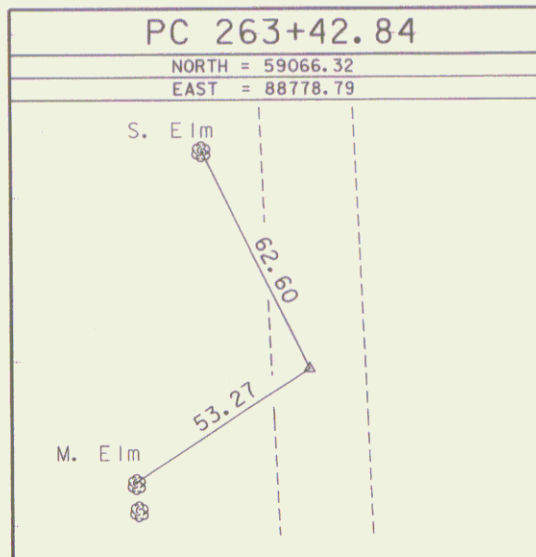
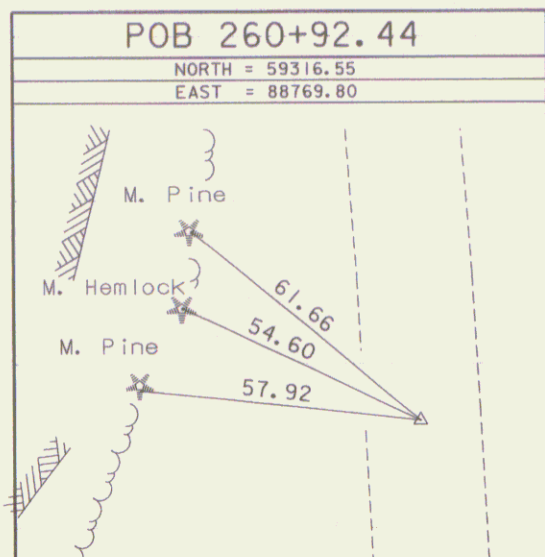
TRAVERSE TIES



DATUM	
VERTICAL	NAVD 83
HORIZONTAL	NAD 88
ADJUSTMENT	Compass

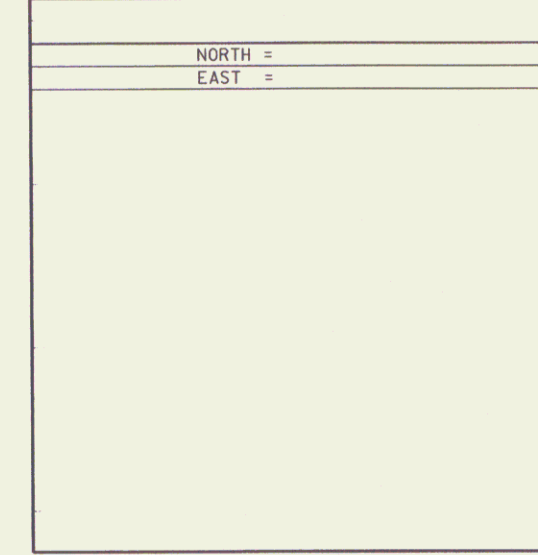
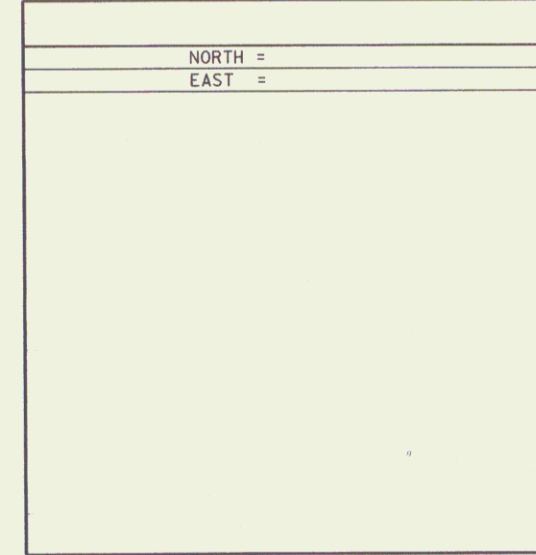
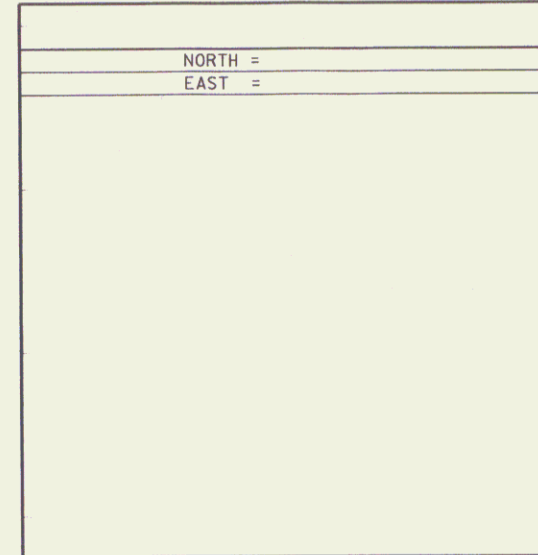
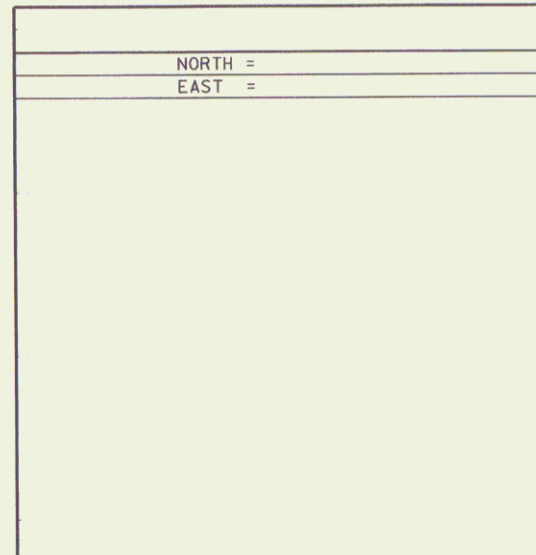
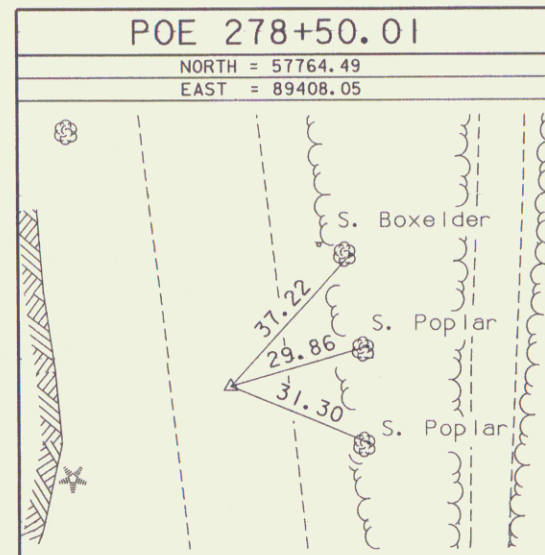
PROJECT NAME:	Moretown - Middlesex
PROJECT NUMBER:	BRS 0284 (14)
FILE NAME:	78f219/survey/xf219t1.dgn
PROJECT LEADER:	
DESIGNED BY:	
PLOT DATE:	03-JUN-2008
DRAWN BY:	R. Bullock
CHECKED BY:	
ROW SHEET:	7 OF 20

ALIGNMENT TIES



• ALIGNMENT STAKED 06/06/03 by J. Hulett & P. Winters & A. Somani

ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 83
HORIZONTAL	NAD 88
ADJUSTMENT	Compass

PROJECT NAME:	Moretown - Middlesex
PROJECT NUMBER:	BRS 0284 (14)
FILE NAME:	78f219/survey/xf219t1.dgn
PROJECT LEADER:	
DESIGNED BY:	
PLOT DATE:	03-JUN-2008
DRAWN BY:	R. Bullock
CHECKED BY:	
ROW SHEET:	8 OF 20



Moretown/Middlesex BRS 0284(14) Right of Way Stakeout
 Surveyed by L.Orvis PC/R.Bockus
 Resident Engineer Bob Suckert

Note: BND= Bounds are 3/4" Dia. by 4' Long with Aluminum Cap Stamped " BRS
 0284<14> LS #451"

Coordinate Report

Pt Name	Northing	Easting	Elevation	Description
6	58,562.010	88,881.280	458.500	HVCTRL
7	59,582.780	88,746.540	457.900	HVCTRL
8	58,775.560	88,782.810	458.890	HVCTRL
10	58,218.280	88,299.900	451.970	HVCTRL
11	57,758.610	89,362.170	457.470	HVCTRL
12	57,487.050	89,426.030	454.710	HVCTRL
500	58,894.653	88,848.743	460.670	HVCTRL
501	58,209.463	89,370.859	453.611	HVCTRL
506	59,120.898	88,795.935	457.381	HVCTRL

Alignment Control

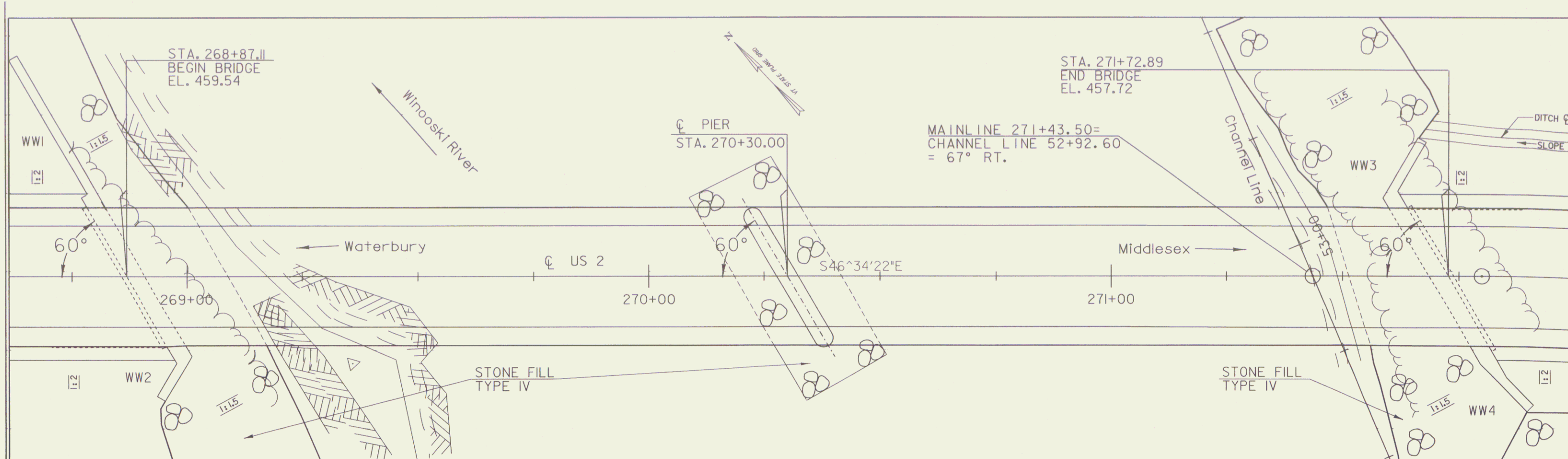
50	58,286.957	88,897.457	0.000	POB 101+41.83
51	58,400.988	88,913.971	0.000	PC 103+16.75
52	58,595.282	88,878.214	0.000	PT 104+58.68
53	58,640.486	88,839.921	0.000	PC 105+25.04
54	58,742.143	88,858.610	0.000	PT 106+30.88
55	58,752.265	88,874.838	0.000	POE 106+50.00
59	59,408.930	88,766.481	0.000	POB 260+00.00
60	59,316.550	88,769.800	0.000	POE 260+92.44
61	59,006.320	88,778.790	0.000	PC 263+42.84
62	58,626.830	88,977.370	0.000	PT 269+37.45
63	58,391.330	89,226.170	0.000	PC 271+80.03
64	58,095.290	89,372.710	0.000	PT 275+17.32
65	57,764.490	89,408.050	0.000	POE 278+50.01
66	58,879.339	88,813.679	0.000	POB 68+50.00
67	58,825.913	88,861.626	0.000	PC 68+11.35
68	58,803.007	88,844.937	0.000	PT 68+40.90
69	58,738.849	88,841.806	0.000	POE 69+05.75

Bounds Set "September 27&28, 2010"

600	59,308.124	88,745.332	452.265	291+00 R24.75 BND*Ground Level
601	59,310.193	88,803.051	453.800	261+00 L33.00 BND*Ground Level
602	59,160.316	88,808.448	454.965	262+50 L33.00 BND*Ground Level
603	59,160.688	88,819.967	454.576	262+50 L44.54 BND*Ground Level
604	59,065.123	88,745.808	453.727	203+42.84 R33.00 BND*Ground Level
605	58,972.808	88,853.131	453.486	264+50 L62.83 BND*Ground Level
606	58,977.284	88,874.849	452.041	264+50 L85.00 BND*Ground Level
607	58,940.368	88,762.128	455.104	264+62.84 R33.00 BND*Ground Level
608	58,718.908	88,788.783	457.049	105+84.32 L44.00 BND*Ground Level
609	58,910.382	88,893.165	451.467	265+30.15 L85.00 BND*Ground Level
610	58,835.532	88,796.984	453.544	105+33.04 L44.00 BND*3"Below Ground
611	58,669.904	88,842.275	451.778	104+56.68 L44.00 BND*Ground Level
612	58,480.113	88,890.119	452.728	103+35.95 L24.75 BND*Ground Level
613	58,184.463	89,278.631	445.403	274+00 R71.86 BND*Ground Level
614	58,081.752	89,318.214	446.091	275+25 R55.63 BND*Ground Level
615	58,059.999	89,349.738	449.666	275+50 R26.60 BND*2"Below Ground
616	57,998.444	89,357.377	450.712	276+12 R25.54 BND*2"Below ground

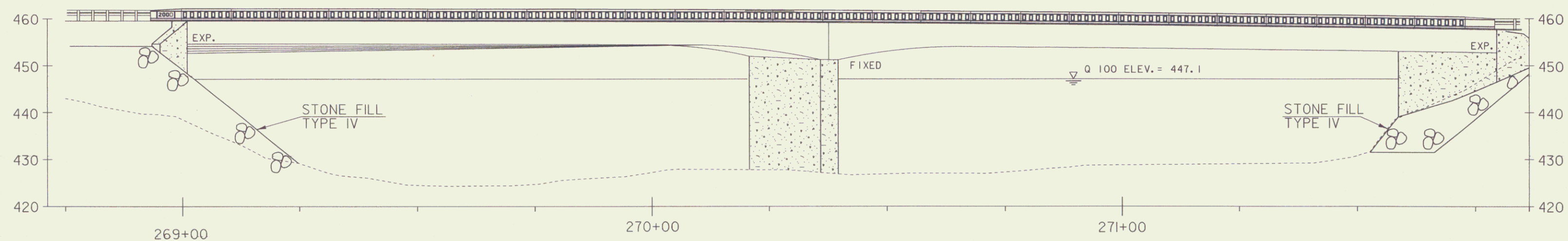
DATUM	
VERTICAL	NAVD 83
HORIZONTAL	NAD 88
ADJUSTMENT	Compass

PROJECT NAME:	Moretown - Middlesex		
PROJECT NUMBER:	BRS 0284 (14)		
FILE NAME:	78f219/survey/xf219t1.dgn	PLOT DATE:	02-DEC-2011
PROJECT LEADER:		DRAWN BY:	R. Bullock
DESIGNED BY:		CHECKED BY:	
		ROW SHEETS:	6 OF 20



PLAN

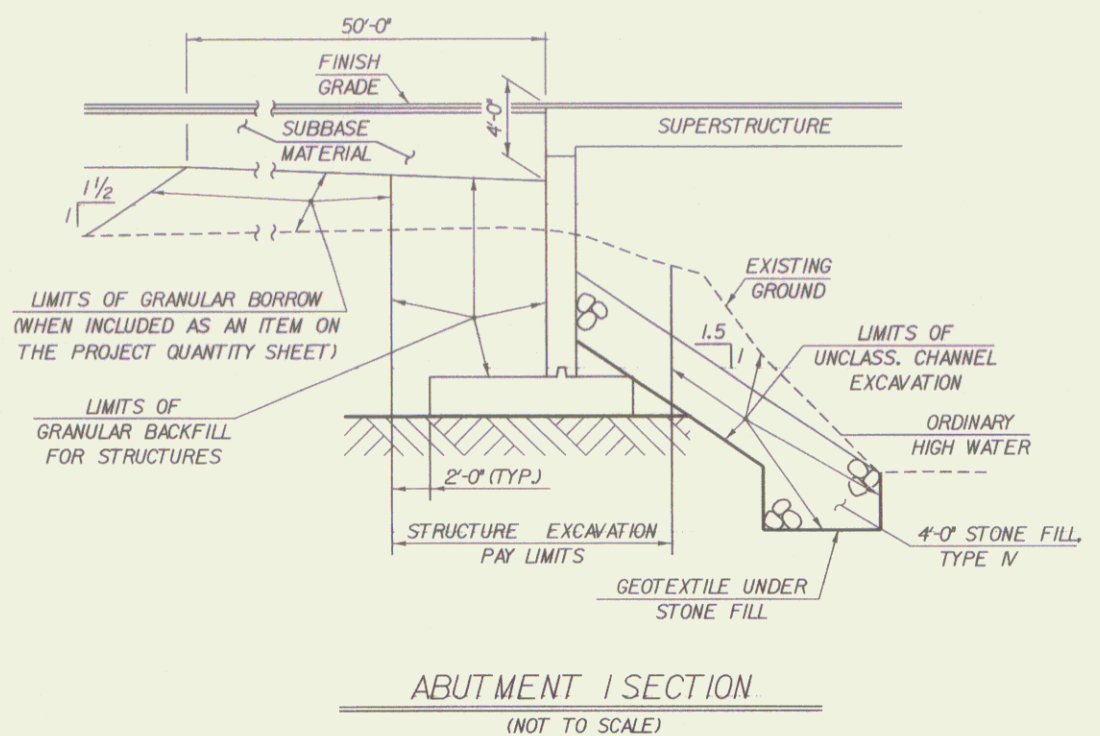
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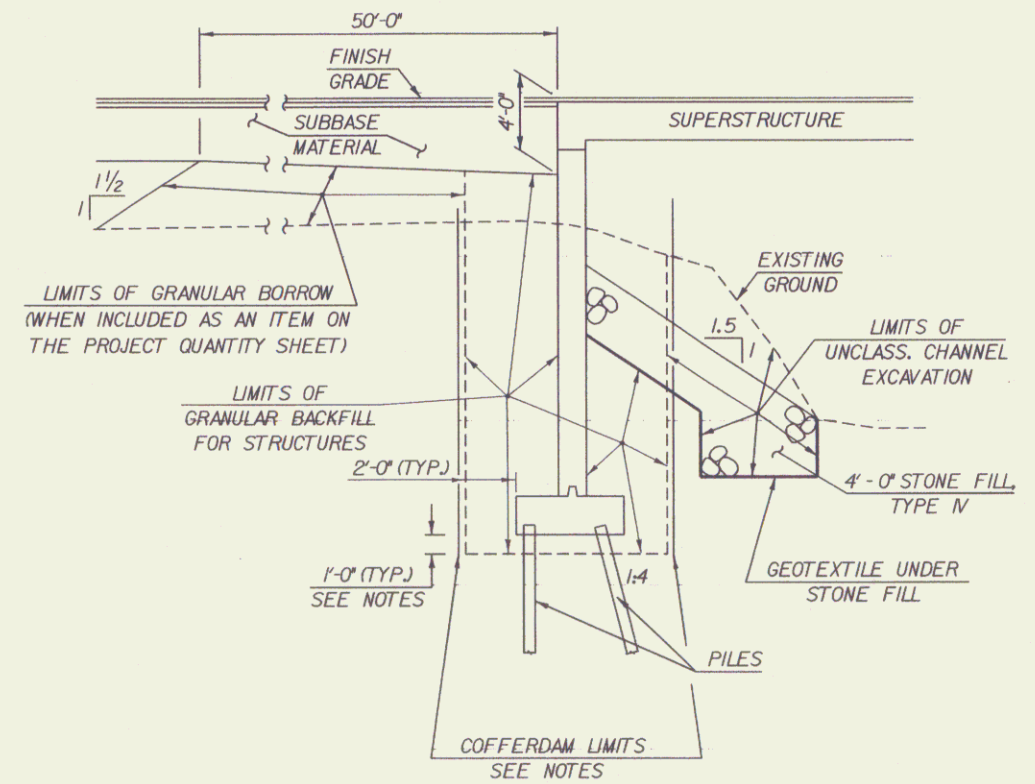
ELEVATION

SCALE 1" = 10'-0"

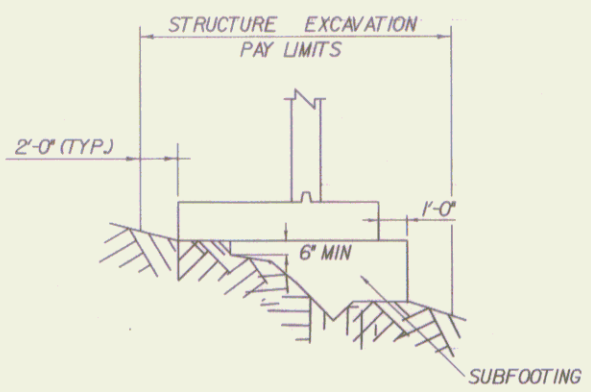
PROJECT NAME: MORETOWN-MIDDLESEX	PLOT DATE: 03-JUN-2008
PROJECT NUMBER: BRS 0284(14)	DRAWN BY: L. Russell
FILE NAME: /78f219/str/sf219bdr.dgn	CHECKED BY:
PROJECT LEADER: M. Evans-Mongeon	ROW SHEET 10 OF 20
DESIGNED BY: L. Russell	



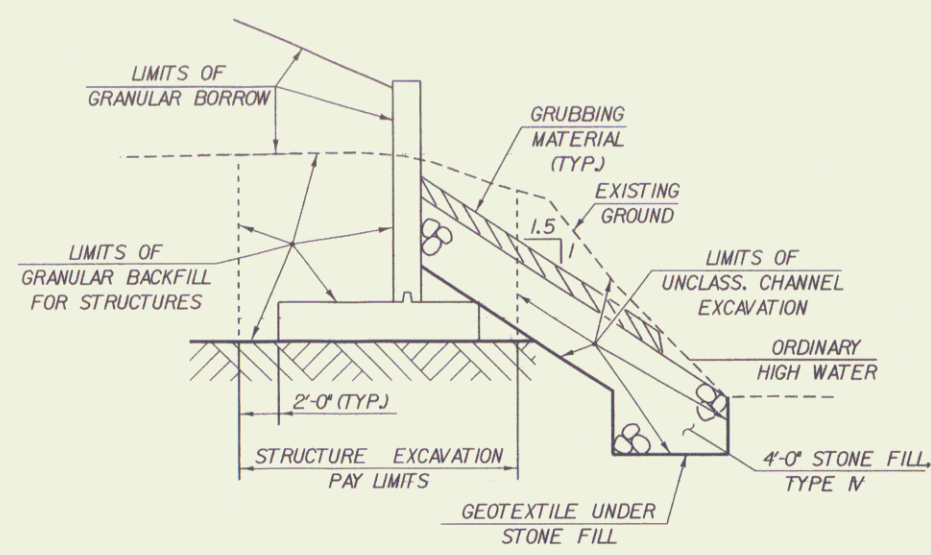
ABUTMENT 1 SECTION
(NOT TO SCALE)



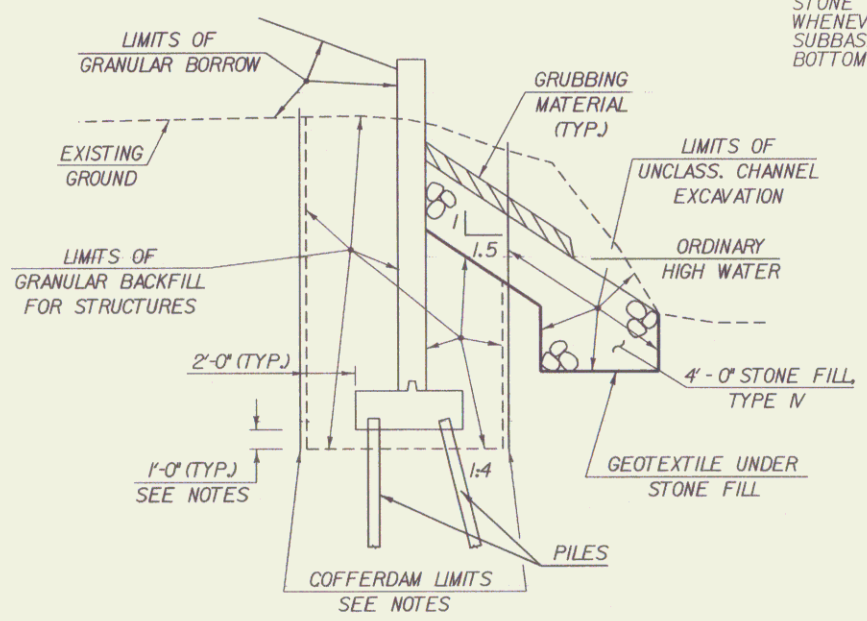
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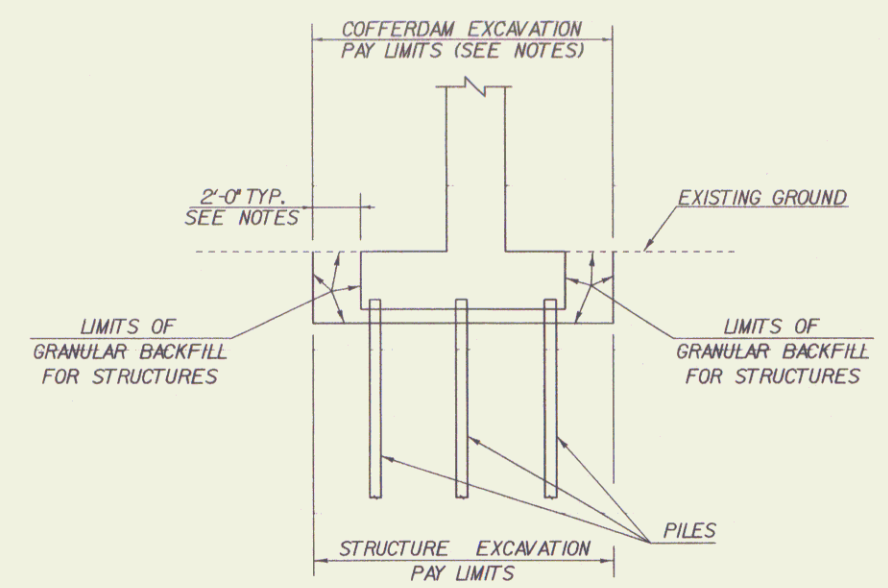
ABUTMENT 1 WING WALL 1&2
SUBFOOTING TYPICAL DETAIL
(NOT TO SCALE)



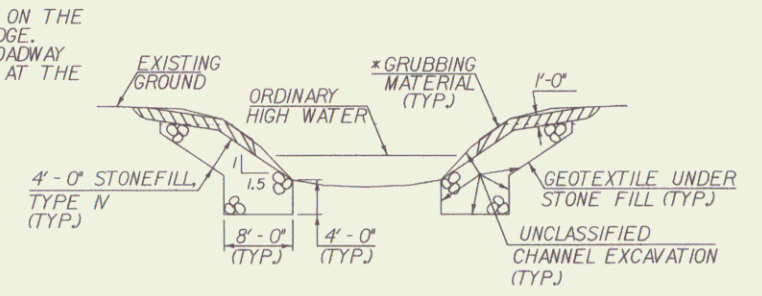
TYPICAL WINGWALL 1 & 2 SECTION
(NOT TO SCALE)



TYPICAL WINGWALL SECTION 3&4
(NOT TO SCALE)



PIER EARTHWORK SECTION
(NOT TO SCALE)



TYPICAL CHANNEL SECTION
(NOT TO SCALE)

NOTES

1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 2'-0" OUTSIDE THE PERIMETER OF THE FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
3. ONE FOOT UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.

*GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

TYPICAL SECTIONS SHEET 3

PROJECT NAME:	MORETOWN-MIDDLESEX	FILE NAME:	/78f219/str/sf219frm.dgn	PLOT DATE:	03-JUN-2008
PROJECT NUMBER:	BRS 0284(14)	PROJECT LEADER:	M. EVANS-MONGEON	DRAWN BY:	G. ROKES
DESIGNED BY:	S. SCRIBNER	CHECKED BY:	S. SCRIBNER	ROW SHEET:	11 OF 20

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF A BRIDGE OVER THE WINOOSKIRIVER. THE PROJECT IS ON US ROUTE 2 BETWEEN THE TOWNS OF MORETOWN AND MIDDLESEX. THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF BRIDGE NO. 50 AND ITS ABUTMENTS, AND SOME APPROACH WORK. A NEW DOUBLE LANE, DOUBLE SPAN, STEEL GIRDER BRIDGE WILL BE CONSTRUCTED DOWNSTREAM OF THE EXISTING BRIDGE. TRAFFIC WILL BE MAINTAINED ON THE EXISTING BRIDGE DURING CONSTRUCTION. FOLLOWING COMPLETION OF THE NEW BRIDGE, THE EXISTING BRIDGE, ABUTMENTS AND PIER WILL BE REMOVED. TOTAL LENGTH OF PROJECT IS 1600 FEET. THE LIMITS OF CONSTRUCTION DO NOT APPROACH ANY BUILDING OR OTHER STRUCTURES BUT DO ENCROACH UPON THE DISTRICT 6 MAINTENANCE FACILITY. NO THREATENED AND ENDANGERED SPECIES HAVE BEEN IDENTIFIED IN THE PROJECT AREA. THE EXISTING BRIDGE STRUCTURE HAS BEEN CLEARED FOR REMOVAL AS IT HAS BEEN PHOTO-DOCUMENTED FOR HISTORICAL PURPOSES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST TWO CONSTRUCTION SEASONS.

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS)= 4.53 ACRES

SITE INVENTORY AND ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION WITH MODERATE SLOPES AT THE PROJECT SITE AND MIXED SOFTWOOD AND HARDWOOD FOREST. THE PROPERTY SURROUNDING THE PROJECT SITE IS MOSTLY GRASSLAND WITH WOODS AND HILLY TO MOUNTAINOUS TERRAIN IN THE DISTANCE. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER ON THE PROJECT SITE FROM NEARBY SLOPES.

DRAINAGE, WATERWAYS, BODIES OF WATER

THE WINOOSKIRIVER IS LOCATED IN THE PROJECT AREA. THERE ARE NO OTHER BODIES OF WATER WITHIN THE PROJECT AREA. THE RIVER IS CLASSIFIED AS SINUOUS, ALLUVIAL, AND PROBABLY INCISED. THE CONTRIBUTING AREA AT THE BRIDGE CROSSING IS 670 SQUARE MILES.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE PROJECT SITE IS MOSTLY OPEN FIELDS WITH PATCHES OF WOODED AREA. THE LAND AT THE PROJECT SITE IS MOSTLY FLAT BUT THE LAND TO THE SOUTH EAST IS STEEP IN SPOTS. THERE IS ONE HOUSE JUST OUTSIDE THE PROJECT LIMITS TO THE SOUTH AND THE DISTRICT 6 MAINTENANCE FACILITY EXISTS PARTIALLY WITHIN THE PROJECT LIMITS TO THE EAST. THE OVERHEAD POWER AND TELEPHONE LINES THAT SERVE THE MAINTENANCE FACILITY WILL BE RELOCATED.

VEGETATION

THE PROJECT SITE CONTAINS A MIXTURE OF GRASS, BRUSH, HARDWOOD AND SOFTWOOD TREES. NO FIELDS WITH AGRICULTURAL CROPS EXIST NEAR THE PROJECT. THE IMPACT TO THE VEGETATION WILL BE LIMITED TO THAT WHICH IS AFFECTED BY CONSTRUCTION OF THE NEW BRIDGE ALONG THE NEW ALIGNMENT, THE RECONSTRUCTION OF TOWN HIGHWAY 9 AND THE DRIVE. SOME MATURE TREES, MOSTLY HARDWOOD, WILL BE REMOVED FOR THE NEW ALIGNMENT.

FOLLOWING CONSTRUCTION OF THE NEW BRIDGE, THE EXISTING BRIDGE AND ROADWAY APPROACHES WILL BE REMOVED, THE SLOPES STABILIZED WITH STONE FILL AND VEGETATION REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

SOILS

THE SOIL CONSERVATION SERVICE HAS MAPPED THE SOILS THROUGHOUT WASHINGTON COUNTY. THE SOIL TYPES IDENTIFIED FOR THIS PROJECT SITE ARE:
1. RUMNEY FINE SANDY LOAM, WITH 0-2% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.24 AND POOR DRAINING
2. ONDAWA FINE SANDY LOAM, WITH 0-3% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.24 AND WELL-MODERATELY WELL DRAINING
3. TUNDBRIDGE-LYMAN COMPLEX, WITH 35-60% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.22 AND WELL DRAINING
4. COLTON GRAVELLY LOAMY SAND, 8-15% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.15 AND WELL-EXCESSIVELY DRAINING
5. PITS, SAND AND PITS, GRAVEL, MOSTLY UNCLASSIFIED, LOCATED AROUND THE MAINTENANCE FACILITY

SENSITIVE RESOURCE AREAS

CLASS III WETLANDS WERE IDENTIFIED IN THE PROJECT AREA. THERE WILL BE SOME IMPACT TO THE WETLANDS ALTHOUGH EVERY ATTEMPT SHOULD BE MADE TO MINIMIZE OR ELIMINATE ANY IMPACT WITHIN THIS SITE.

NO THREATENED AND ENDANGERED SPECIES, PRIME AGRICULTURAL LAND, OR CRITICAL HABITATS HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA.

THE PROJECT IS CLEAR OF ARCHEOLOGICAL RECOURCES.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

DISTURBANCE OF SOILS NEAR NATURAL OR MAN-MADE WATERS CONSISTS OF THAT WHICH IS NECESSARY TO CONSTRUCT THE TWO NEW CONCRETE BRIDGE ABUTMENTS, CENTER PIER, AND APPLICABLE ROADWAY APPROACHES AS WELL AS THE REMOVAL OF THE EXISTING CROSSING. STABILIZATION OF DISTURBANCE TO THE RIVER BANKS WILL BE ACCOMPLISHED WITH STONE FILL, TYPE IV AND UNDERLAIN WITH GEOTEXTILE FABRIC.

RISK EVALUATION

LOW RISK PROJECT

THE PROJECT HAS BEEN DETERMINED TO BE LOW RISK AND AS SUCH THE LOW RISK SITE HANDBOOK MUST BE ON SITE AND COMPLIED WITH.

NO CHANGES TO PROJECT LIMITS OR SOIL STABILIZATION TECHNIQUES THAT MAY AFFECT THE RISK LEVEL AT THIS POINT

ANY MODIFICATIONS TO THE PROJECT SHALL RESULT IN A RE-EVALUATION OF THE RISK AND THE CONTRACTOR IS RESPONSIBLE FOR RE-FILING SHOULD THE RISK CHANGE.

TEMPORARY EROSION AND SEDIMENT CONTROL

PERIMETER EROSION CONTROLS

PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE PROJECT DEMARCATION FENCING (PDF) SHALL BE PLACED ALONG THE PERIMETER OF THE PROJECT AS SHOWN ON THE EROSION CONTROL PLANS. THE INSTALLATION OF THE PDF WILL BE PERFORMED SUCH THAT NO VEGETATION ON THE OUTSIDE OF THE FENCING IS DISTURBED.

PRIOR TO ANY CONSTRUCTION OR STAGING, THE CONTRACTOR WILL INSTALL STABILIZED CONSTRUCTION ENTRANCES LEADING TO STAGING AREAS AND THE PROJECT SITE TO PREVENT THE TRACKING OF SILTS AND SEDIMENTS OFFSITE. STABILIZED CONSTRUCTION ENTRANCES SHALL ALSO BE ESTABLISHED AND MAINTAINED AT ALL OFFSITE WASTE AND BORROW AREAS. (SEE DETAIL)

CONSTRUCT PERIMETER CONTROLS TO ENSURE THAT ANY DISTURBED SEDIMENT DOES NOT LEAVE THE SITE AFTER THE CLEARING OF TREES AND SHRUBS, BUT PRIOR TO ANY GRUBBING AND EXCAVATION. SEDIMENT TRAPS/BASINS, WHERE WATER HAS BEEN ADEQUATELY TREATED, MAY BE DIRECTED TO NEARBY UNDISTURBED STREAMS OR SWALES.

INSTALL PERIMETER SILT FENCE IN AREAS OF PROPOSED WORK AS SHOWN ON THE PLANS PRIOR TO GRUBBING AND ADDITIONAL SILT FENCING. IN AREAS OF EXPOSED LEDGE, STONE CHECK DAMS WILL BE UTILIZED.

AFTER GRUBBING OPERATIONS, ALL AREAS OF EXPOSED SOILS SHALL BE TEMPORARILY STABILIZED WITH SEEDING AND MULCHING, EROSION MATTING, OR STRAW MATTING AS SOON AS PRACTICABLE AND BEFORE ANY PREDICTED RAINFALL EVENT. THESE TEMPORARY EROSION CONTROL MEASURES CAN BE PLACED IN ANY COMBINATION IN AREAS OF POTENTIAL EROSION AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.

AFTER PERIMETER CONTROLS ARE IN PLACE, AND PRIOR TO GRADING OPERATIONS, CONSTRUCT TEMPORARY ONSITE SEDIMENT TRAPS WHERE NECESSARY. GRADE DISTURBED AREAS TO DRAIN TOWARDS THE SEDIMENT TRAPS WHERE POSSIBLE.

ANY MATERIAL STOCKPILES, INCLUDING BUT NOT LIMITED TO, GRUBBING MATERIAL, SAND BORROW, EARTH BORROW, GRANULAR BORROW, TOPSOIL, AND ANY EXCAVATED WASTE PILES SHALL BE MULCHED AND SHALL ALSO HAVE SILT FENCE INSTALLED AROUND THE BASE OF THE STOCKPILE.

ANY OFF-SITE AREAS WHERE BORROW OR EXCAVATED MATERIALS WILL BE STOCKPILED AND ANY WASTE DISPOSAL AREAS WILL HAVE TWO INSTALLATIONS OF SILT FENCE, 2 FEET APART AROUND THE BASE OF EACH STOCKPILE. SEEDING AND MULCHING SHALL BE PERFORMED IMMEDIATELY AFTER FINAL GRADING. REMOVAL OF THE SILT FENCES AROUND THE WASTE AREAS SHALL BE PERFORMED ONLY AFTER APPROVAL FROM THE RESIDENT ENGINEER IS OBTAINED.

ON PARTIALLY COMPLETED FILL AND CUT SLOPES, ALL EXPOSED SLOPES WILL BE STABILIZED AT THE END OF EACH WORKING DAY.

SEEDING, MULCHING, AND BIOGRADABLE EROSION CONTROL MATTING OR EQUIVALENT PRODUCT WILL BE UTILIZED ON ALL SLOPES GREATER THAN 3% THAT ARE NOT LINED WITH STONE FILL. IN AREAS WITH LARGE SLOPES, STONE FILL UNDERLAIN WITH GEOTEXTILE FABRIC IS REQUIRED. ALL SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION ACTIVITY. MULCH AND SURFACE ROUGHEN ALL DISTURBED AREAS WHICH WILL NOT RECEIVE FURTHER DISTURBANCE FOR A PERIOD OF 7 DAYS OR MORE. SEED AND MULCH ALL DISTURBED AREAS WHICH WILL NOT RECEIVE FURTHER DISTURBANCE FOR A PERIOD OF 14 DAYS OR MORE.

EROSION CONTROL NARRATIVE #1

PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78f29/str/s78f29erobdr.dgn PLOT DATE: 03-JUN-2008
PROJECT LEADER: M.EVANS-MONGEON DRAWN BY: W.FARLEY
DESIGNED BY: L.RUSSELL CHECKED BY: W.FARLEY
ROW SHEET 12 OF 20

EROSION CONTROL NARRATIVE

BRIDGE EROSION

THERE WILL BE TWO TEMPORARY CAUSEWAYS REQUIRED FOR THIS PROJECT, ONE FOR THE PROPOSED STRUCTURE AND ONE FOR THE EXISTING. THE DOWNSTREAM CAUSEWAY WILL BE REQUIRED TO ACCESS THE CENTER PIER LOCATION OF THE PROPOSED STRUCTURE FOR POURING CONCRETE AND MAY ALSO BE USED TO HELP FACILITATE IN THE PLACEMENT OF THE STEEL. THE UPSTREAM CAUSEWAY WILL BE BUILT AFTER THE DOWNSTREAM CAUSEWAY HAS BEEN REMOVED. IT WILL ALLOW ACCESS TO THE CENTER PIER OF THE EXISTING STRUCTURE FOR REMOVAL. ONLY ONE CAUSEWAY MAY BE IN PLACE AT A GIVEN TIME.

THE NEW PIER SUBSTRUCTURES WILL BE CONSTRUCTED IN THE DRY, AND WILL REQUIRE THE USE OF COFFERDAMS. THE COFFERDAMS WILL BE USED AS A BARRIER TO PREVENT SEDIMENTS FROM THE SUBSTRUCTURE EXCAVATION FROM ENTERING THE STREAM. CONSTRUCTION OF THE SUBSTRUCTURES MAY REQUIRE DE WATERING OF THE COFFERDAMS. ALL WATER PUMPED FROM THE SUBSTRUCTURE AND OTHER EXCAVATION AREAS WILL BE PUMPED TO EITHER A DIRT BAG SILT CONTAINMENT DEVICE, OR AN EXCAVATED SEDIMENT BASIN. THE FIRST PUMPING OF THE EXCAVATIONS WILL CONTAIN THE GREATEST VOLUME OF WATER WITH THE HIGHEST SEDIMENT LOAD. IT MAY BE NECESSARY TO CONSTRUCT ADDITIONAL SETTLING STRUCTURES, OR TO CONTROL THE RATE OF DRAWDOWN OF THE EXCAVATIONS. (SEE DETAIL)

AFTER COMPLETION OF THE SUBSTRUCTURES, ALL COLLECTED SEDIMENTS SHOULD BE REMOVED FROM THE SETTLING STRUCTURES AND THE GROUND SHAPED TO ITS FINAL GRADE AND SLOPE. DISPOSE OF THE COLLECTED SEDIMENTS IN AN UPLAND PORTION OF THE PROJECT, OR IN A MANNER APPROVED BY THE RESIDENT ENGINEER THAT WILL NOT RESULT IN SEDIMENTS OR POLLUTANTS ENTERING THE STREAM.

FINAL EROSION AND SEDIMENT CONTROL

ROADWAY DITCHES ARE TO BE LINED WITH CLEAN, ANGULAR STONE FILL, TYPE I TO PREVENT EROSION DURING STORM EVENTS. (SEE DETAILS SHEETS)

STREAM BANKS WILL BE LINED WITH STONE FILL, TYPE IV AS SPECIFIED IN THE PLANS.

CULVERT OUTLETS WILL BE PROTECTED WITH TYPE I STONE.

GRASS OR OTHER SUITABLE GROUND COVER WILL BE ESTABLISHED OUTSIDE OF THE ROADWAY LIMITS WHERE STONE LINING HAS NOT BEEN SPECIFIED.

TREE SPECIES WILL BE PLANTED IN APPROPRIATE LOCATIONS WHERE PREVIOUSLY REMOVED.

GENERAL EROSION AND SEDIMENT CONTROL GUIDELINES

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION AND SEDIMENT CONTROL SHALL BE COORDINATED. TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS SHALL BE EMPLOYED. THE CONTRACTOR WILL USE ADDITIONAL EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001.

THE RESIDENT ENGINEER MAY DIRECT THE INSTALLATION OF CERTAIN EROSION CONTROL MEASURES IN ORDER TO AVOID POTENTIAL EROSION PROBLEMS, OR TO RESPOND TO STORM EVENTS OR DAMAGE BY CONSTRUCTION OPERATIONS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. INSTALL TEMPORARY CONTROLS IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE. IN GENERAL, PRESERVE EXISTING GRASSES, SHRUBS, AND TREES WHEREVER POSSIBLE.

CONTROL ONLY SEDIMENT-LADEN RUNOFF GENERATED BY THE PROJECT SITE. COLLECT AND ROUTE CLEAN OFF-SITE RUNOFF AROUND OR THROUGH THE PROJECT SITE USING DIVERSION BERMS, DIVERSION CHANNELS, CULVERTS AND/OR TEMPORARY PIPES.

DO NOT ALLOW CONSTRUCTION EQUIPMENT TO OPERATE ON THE DOWN SLOPE SIDE OF PERIMETER CONTROL MEASURES.

ALL IN-STREAM CONSTRUCTION SHALL TAKE PLACE BETWEEN JULY 1ST AND OCTOBER 1ST.

THIS WILL BE A MULTISEASON PROJECT AND WILL REQUIRE SEASONAL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES. IT IS RECOMMENDED THAT THOSE EROSION CONTROL MEASURES TO ESTABLISH VEGETATION TAKE PLACE BY SEPTEMBER 15TH OF EACH SEASON. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE EROSION CONTROL PLAN OR AS DIRECTED BY THE RESIDENT ENGINEER. DO NOT MODIFY THE TYPE, SIZE OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT APPROVAL OF THE RESIDENT ENGINEER. ANY CHANGES SHALL BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT, AND REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER. INSPECT ALL CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT. REPAIR OR REPLACE ANY DAMAGED MEASURES.

SEDIMENT SETTLING BASIN SIZING CRITERIA

PUMP FLOW RATE	Q(gpm)	Q(m ³ /s)	REQUIRED SURFACE AREA		LENGTH WIDTH = 2d			
			FT ²	M ²	L(ft)	W(ft)	L(m)	W(m)
50	0.0032		595	55	35.0	17.0	10.6	5.3
100	0.0063		1200	111	49.0	24.5	15.0	7.5
150	0.0095		1776	165	59.6	29.8	18.2	9.1
200	0.0126		2368	220	68.8	34.4	21.0	10.5
250	0.0158		2970	276	77.0	38.5	23.4	11.7
300	0.0189		3560	330	84.4	42.2	25.8	12.9
350	0.0221		4155	386	91.2	45.6	27.8	13.9

SEEDING FORMULA RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

EROSION CONTROL NARRATIVE #2

PROJECT NAME: MORETOWN-MIDDLESEX

PROJECT NUMBER: BRS 0284(14)

FILE NAME: s78f29/str/s78f29erobdr.dgn

PROJECT LEADER: M.EVANS-MONGEON

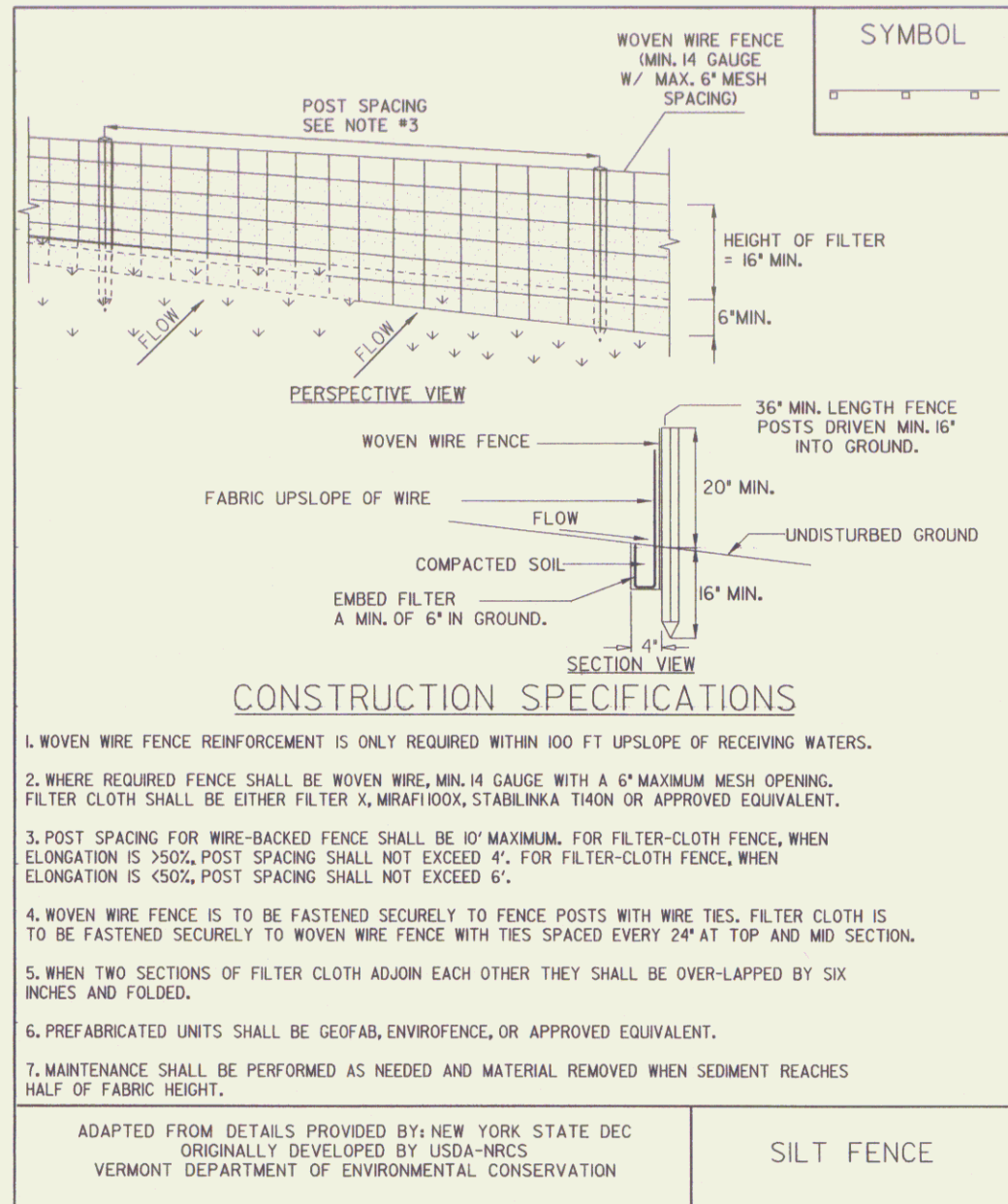
DESIGNED BY: L.RUSSELL

PLOT DATE: 03-JUN-2008

DRAWN BY: W.FARLEY

CHECKED BY: W.FARLEY

ROW SHEET: 13 OF 20



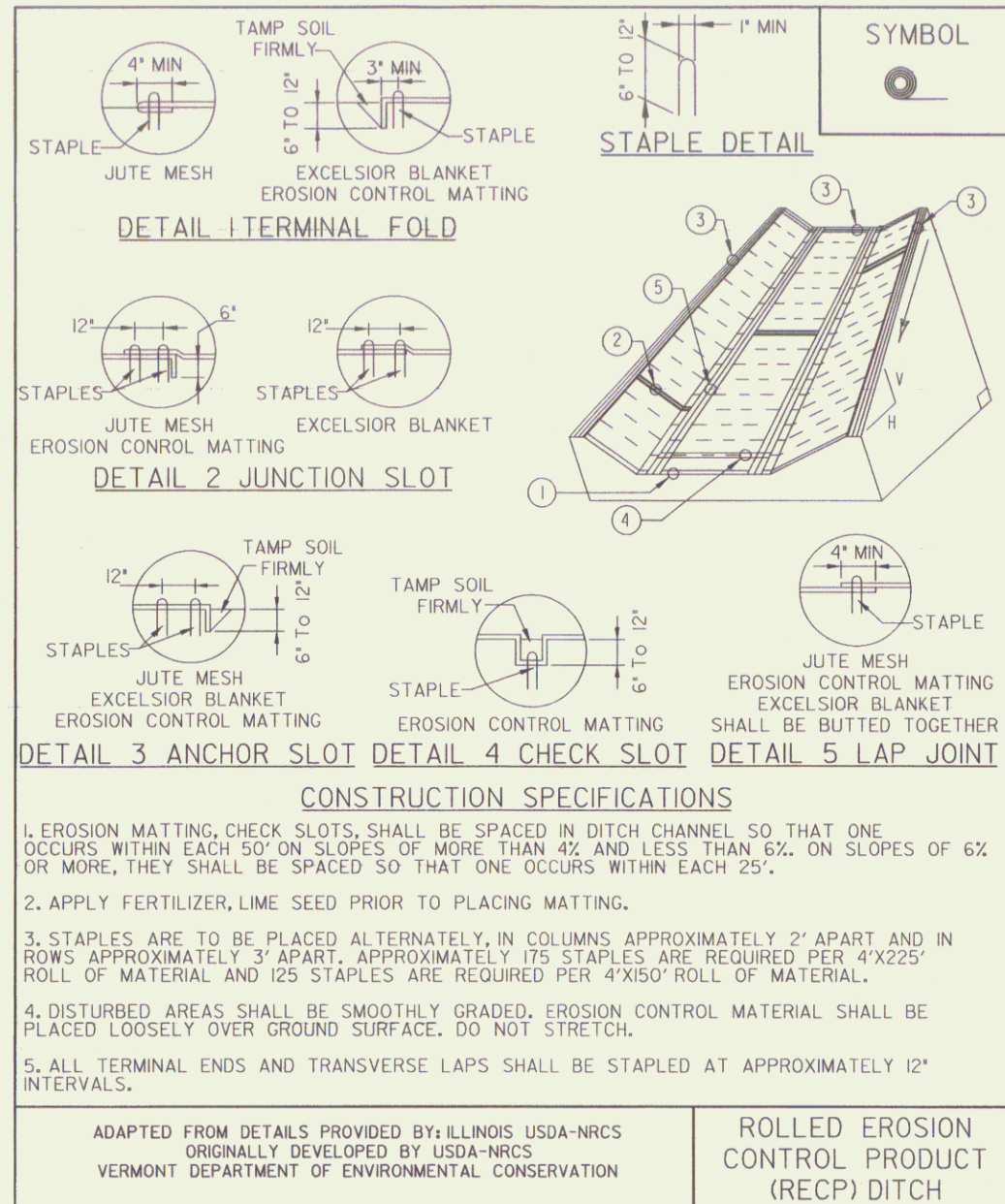
- CONSTRUCTION SPECIFICATIONS**
1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
 2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6\"/>

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY: USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
STANDARD SPECIFICATION 649.51 GEOTEXTILE FOR SILT FENCE OR
SPECIAL PROVISION 900.675 (GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED)



- CONSTRUCTION SPECIFICATIONS**
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12' INTERVALS.

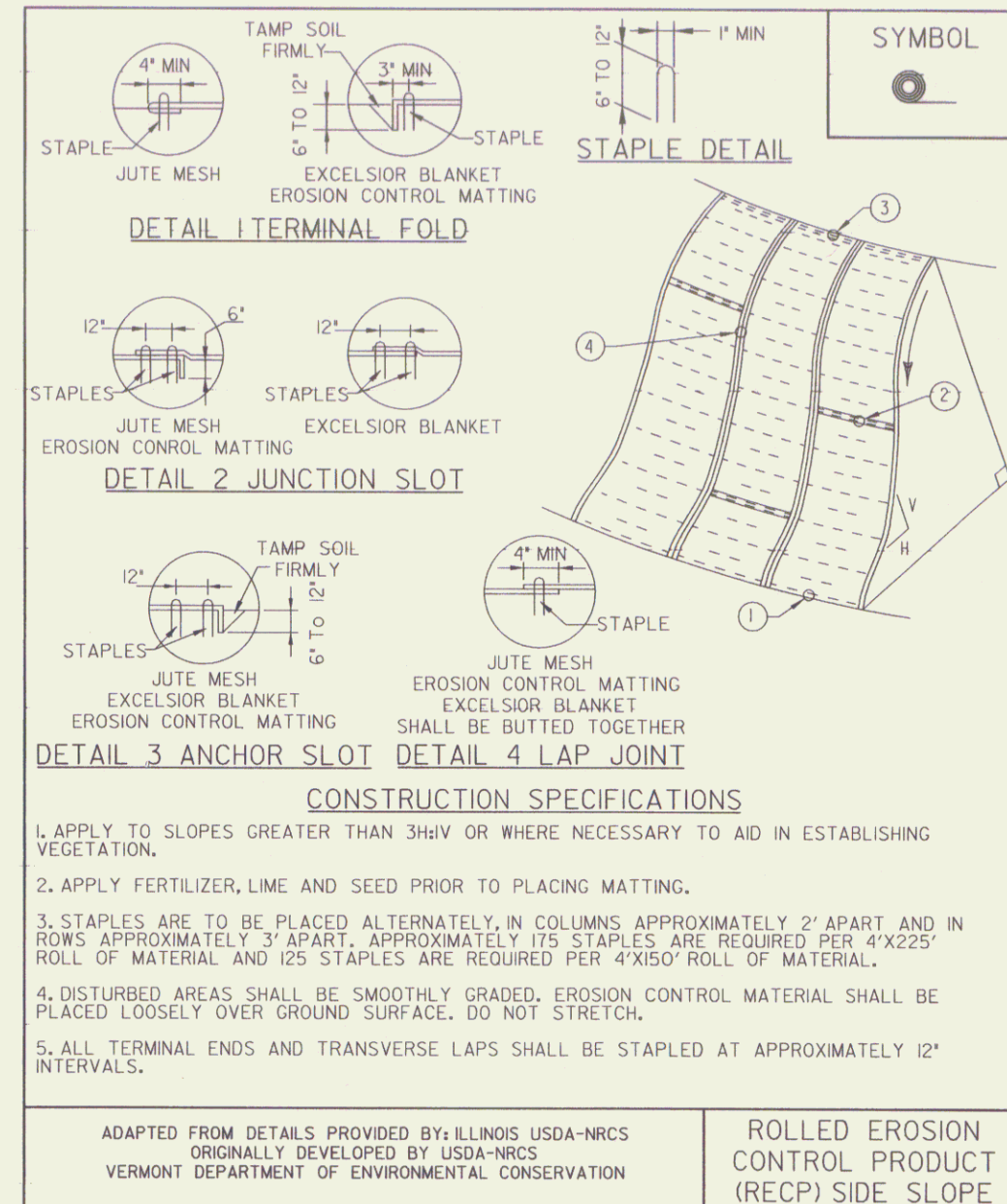
ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY: USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) DITCH

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.20 TEMPORARY EROSION MATTING OR
653.21 PERMANENT EROSION MATTING

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF



- CONSTRUCTION SPECIFICATIONS**
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
 2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12' INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY: USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

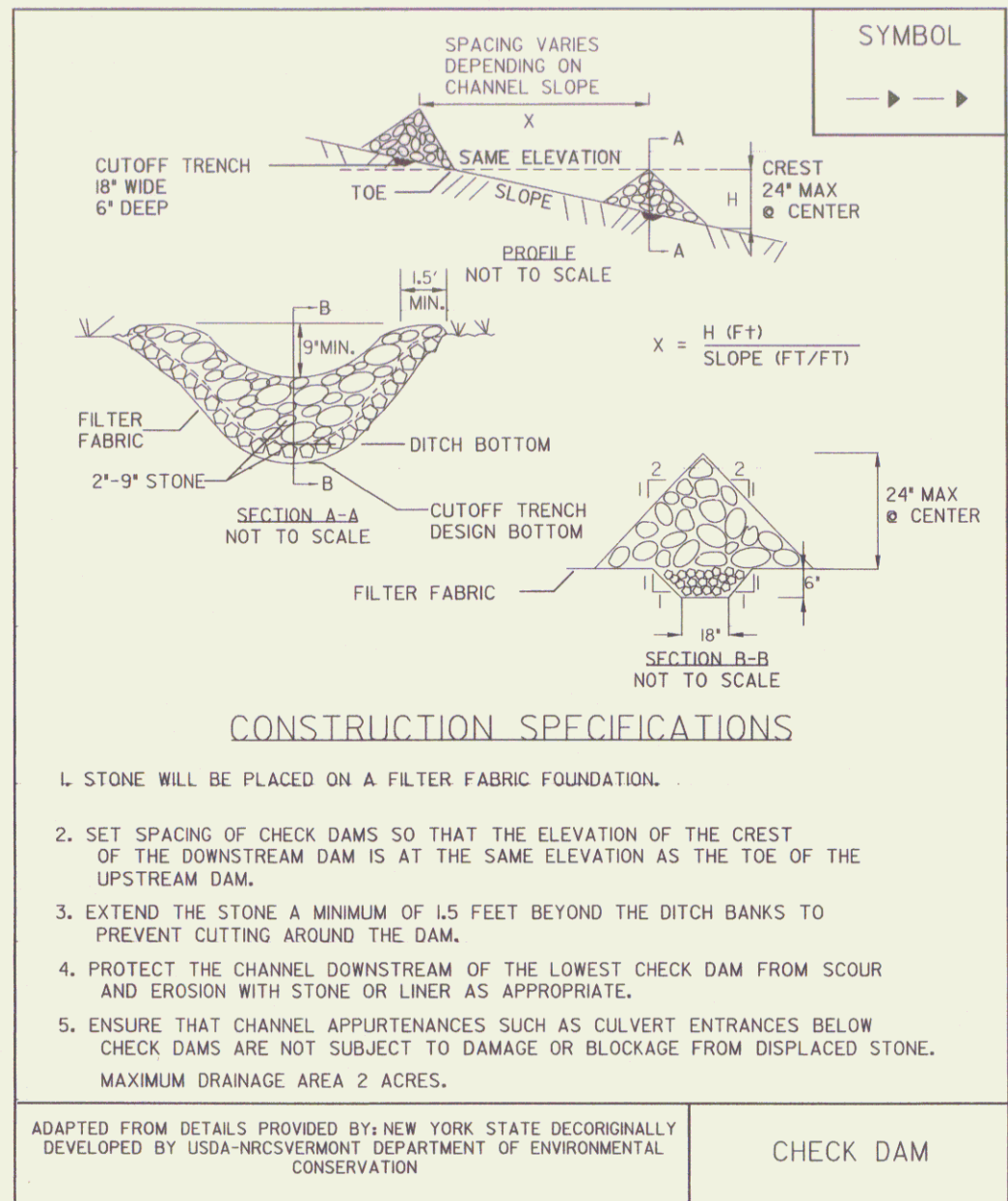
THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.20 TEMPORARY EROSION MATTING OR
653.21 PERMANENT EROSION MATTING

NEW	
APRIL 16, 2007	WHF
REVISIONS	

EPSC DETAIL SHEET 1

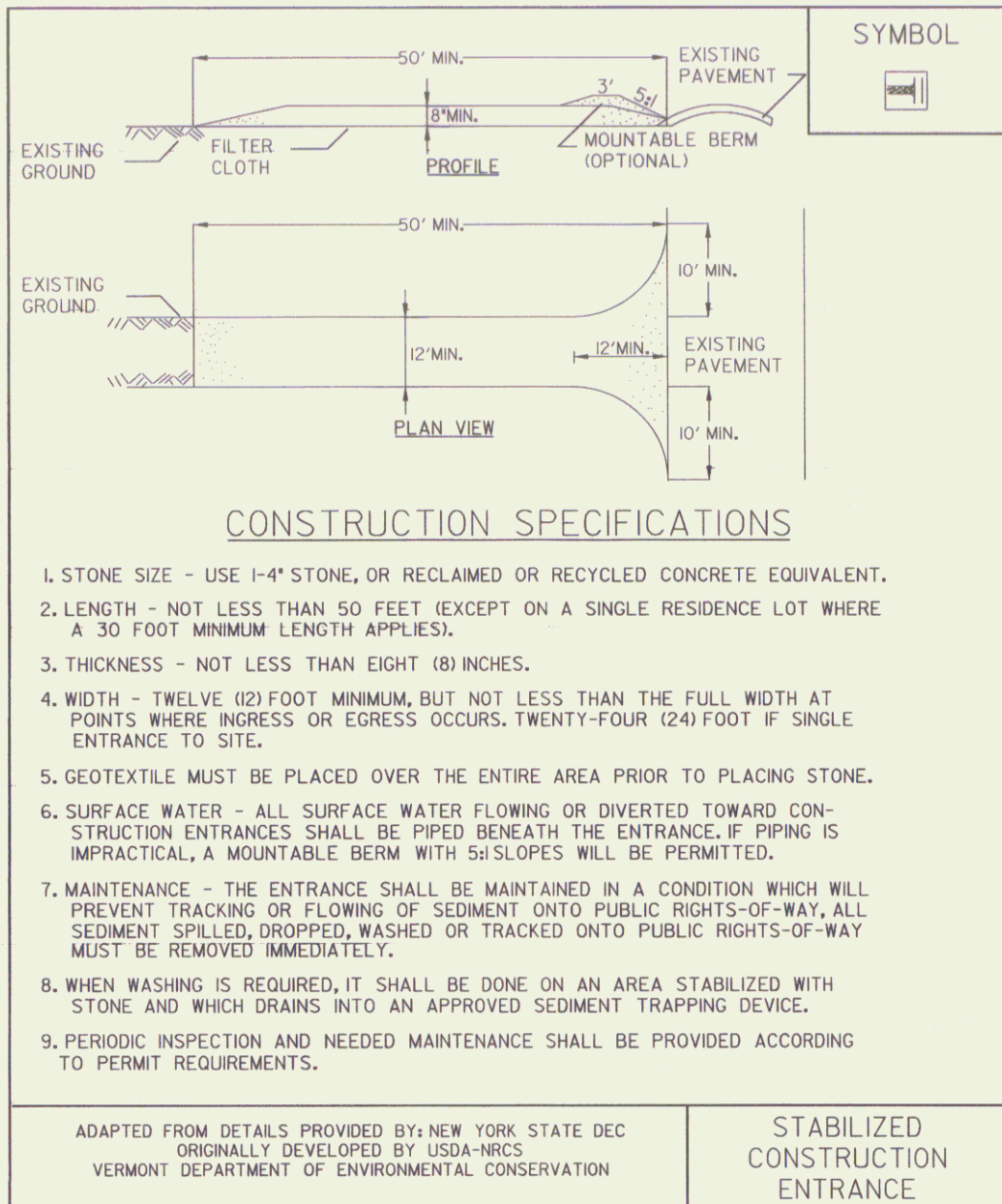
PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: structures/78f219erodet.dg PLOT DATE: 03-JUN-2008
PROJECT LEADER: M. EVANS-MONGEON DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER CHECKED BY: S. SCRIBNER
ROW SHEET 14 of 20



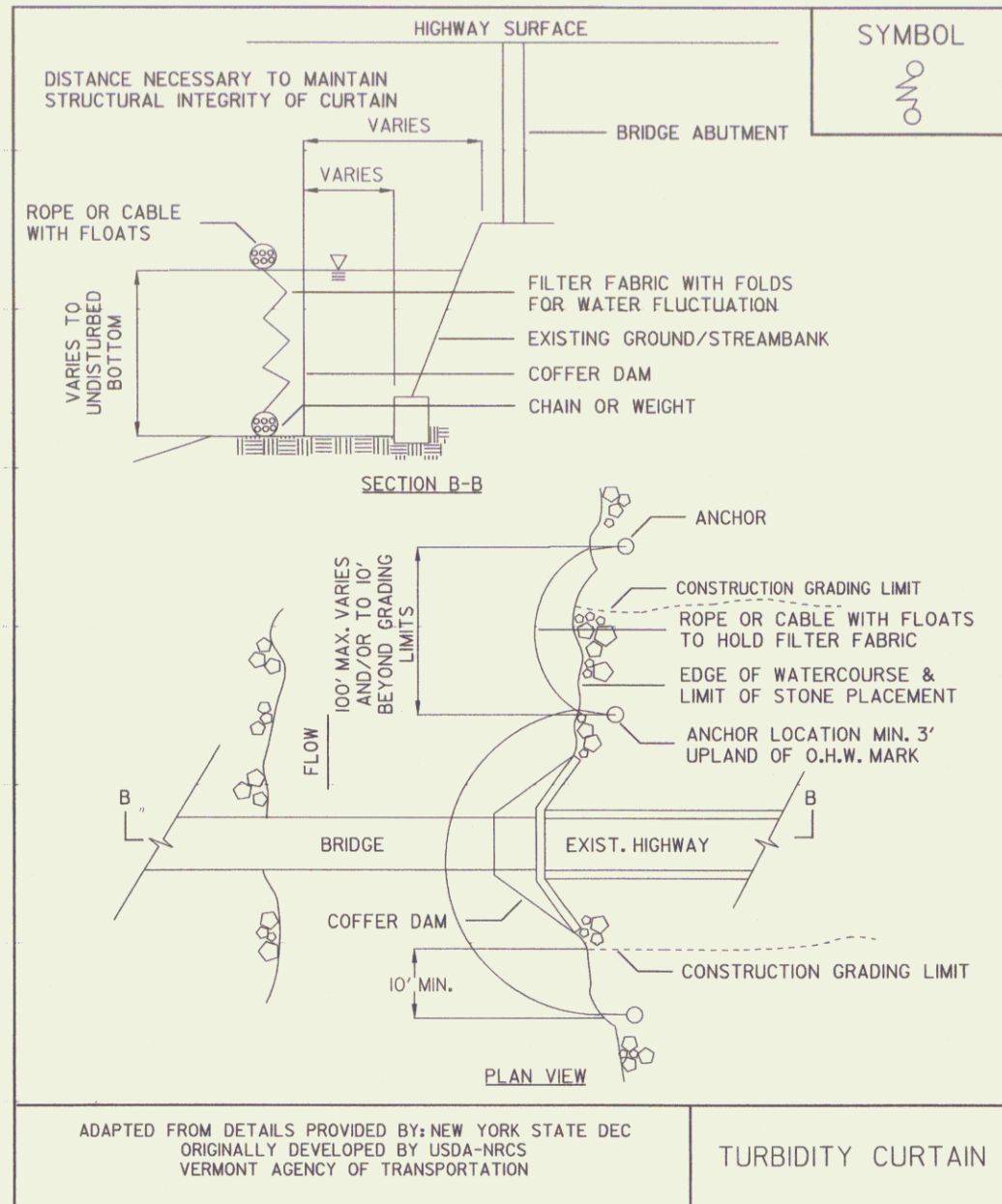
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.25 TEMPORARY STONE CHECK DAM, TYPE 1

REVISIONS
MARCH 8, 2007 JMF



NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.35 VEHICLE TRACKING PAD

REVISIONS
FEBRUARY 9, 2007 WHF
MARCH 8, 2007 JMF



NOTES:
THIS ITEM SHALL BE PAID FOR UNDER ITEM 649.61 GEOTEXTILE FOR FILTER CURTAIN

EPSC DETAIL SHEET 2

PROJECT NAME:	MORETOWN-MIDDLESEX
PROJECT NUMBER:	BRS 0284(14)
FILE NAME:	structures/78f219erodet.dg
PROJECT LEADER:	M. EVANS-MONGEON
DESIGNED BY:	S. SCRIBNER
PLOT DATE:	03-JUN-2008
DRAWN BY:	L. DUQUETTE
CHECKED BY:	S. SCRIBNER
ROW SHEET:	15 OF 20

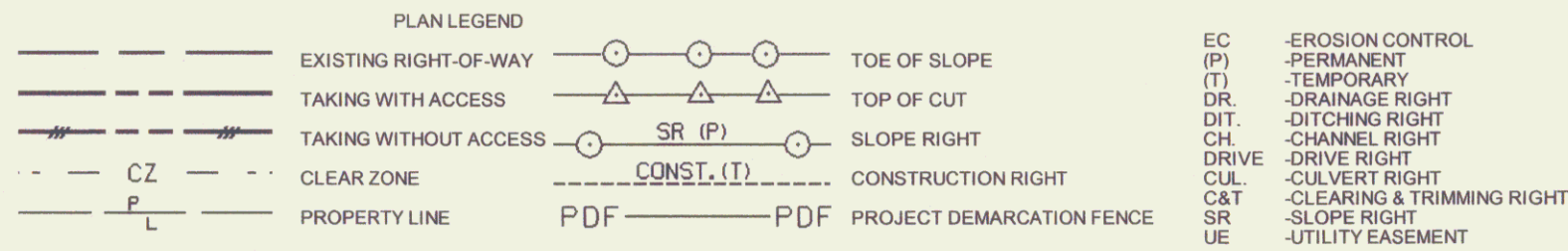
RIGHT - OF - WAY DETAIL SHEET

TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKE AREA±	REMAINDER AREA±	RIGHT			RECORDING DATA				REMARKS	
							TYPE	(TYP)	AREA ±	TITLE	DATE	TOWN / CITY	BOOK		PAGE
1A	CARTER, DREW L. & ROBERTA L.	18	261+00.00 RT	264+62.64 RT	0.08A					WD	02/02/09	MORETOWN	86	351-353	3,323 SF+ SUBJECT TO STORM WATER PERMIT INC. PDF & EROSION CONTROL 14' GRAVEL, LENGTH 240' MM 0315
			261+24 RT	DRIVE STA. 69+06 RT			CONST.	(T)	0.13A						
			262+90 RT	264+95 RT			SLOPE	(T)	295 SF						
			265+34 RT				DRIVE	(T)							
1B		18,19	TH9 105+84.32 LT	TH9 105+33.04 LT	0.02A										1,017 SF+ SUBJECT TO STORM WATER PERMIT INC. PDF & E. C. 4,072 SF+ 605 SF+ EXISTING DRIVE ACCESS TO US RTE 2
			DRIVE STA 69+06 LT	TH9 105+29 LT			CONST.	(T)	0.09A						
			265+88 RT	TH9 105+65 LT			SLOPE	(T)	0.01A						
			266+53 RT				REMOVE	(T)							
1C		18,19	261+00.00 RT	TH9 105+52.69 RT	0.35A										HWY EASE. US RTE 2 SUBJECT TO STORM WATER PERMIT
2A	LARSEN, JONATHAN Z. JOINED BY VERMONT LAND TRUST, INC.	19	TH9 105+49.12 LT	TH9 103+16.75 LT.	0.08A					WD	05/06/09	MORETOWN	87	385-387	3,700 SF SUBJECT TO STORM WATER PERMIT 1,970 SF±, INC. PDF & E. C.
			TH9 105+33.04 LT.	TH9 103+24 LT.			CONST.	(T)	0.04A						
			TH9 103+56 LT	TH9 103+43 LT.			DITCH	(P)	93 SF						
2B		19	TH9 103+01 RT	TH9 103+40 RT			CONST.	(T)	734 SF						INC. PDF & EROSION CONTROL
			TH9 103+15 RT	TH9 103+35 RT			CHANNEL	(P)	360 SF						
			TH9 103+25 RT	TH9 103+30 RT			SLOPE	(T)	12 SF						
			TH9 103+40 RT	TH9 103+45 RT			SLOPE	(T)	20 SF						
2C		19	TH9 105+49.12 LT	269+67.85 RT	0.15A										HWY EASE. US RTE 2 & TH9

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION	DATE
1	18,18,19	PARCEL NO. 2 LARSEN. ADD VERMONT LAND TRUST TO TITLE. MADE BY: MT	07/23/08
2	18,18,19	PARCEL NO. 2 LARSEN. CHANGE 2B TO 2A. CHANGE 2C TO 2B. ADD NEW PARCEL 2C. REMOVE VT LAND TRUST FROM LAYOUT ON LEFT SIDE OF CENTER LINE. ADD NEW STATIONS AND RUNNING DISTANCES. MADE BY: MT	08/13/08
3	17,19,20	PARCEL NO. 3 COLLINS. CHANGE TITLE TO TEBEAU, MARY KAY, FKA COLLINS, MARY KAY. MADE BY: MT	08/13/08
4	17,18,19	PARCEL NO. 8 LARSEN. CREATE NEW PARCEL. LARSEN, JONATHAN Z. JOINED BY THE VERMONT LAND TRUST, INC. 2A IS NOW 8A. PART OF 2D IS NOW 8B. ADD NEW AREAS AND LINE WORK ON LAYOUT. ADD NEW STATIONS AND DISTANCES. MADE BY: MT	08/13/08
		ELECTRONIC FILES TO STRUCTURES	01/29/09
5	1,17,19	TOWN OF MORETOWN. CHANGE ENDING STATION OF RELINQUISHMENT NO. 1 FROM TH 9 103+16.75 LT TO TH 9 103+44.61 RT. MADE BY: MR	08/30/12
6	19	GENERAL REVISION. REVISE OFFSET AT STATION TH 9 104+33.08 WHICH READS 26.00 RT. TO READ 26.02 RT. MADE BY: MR	11/07/12

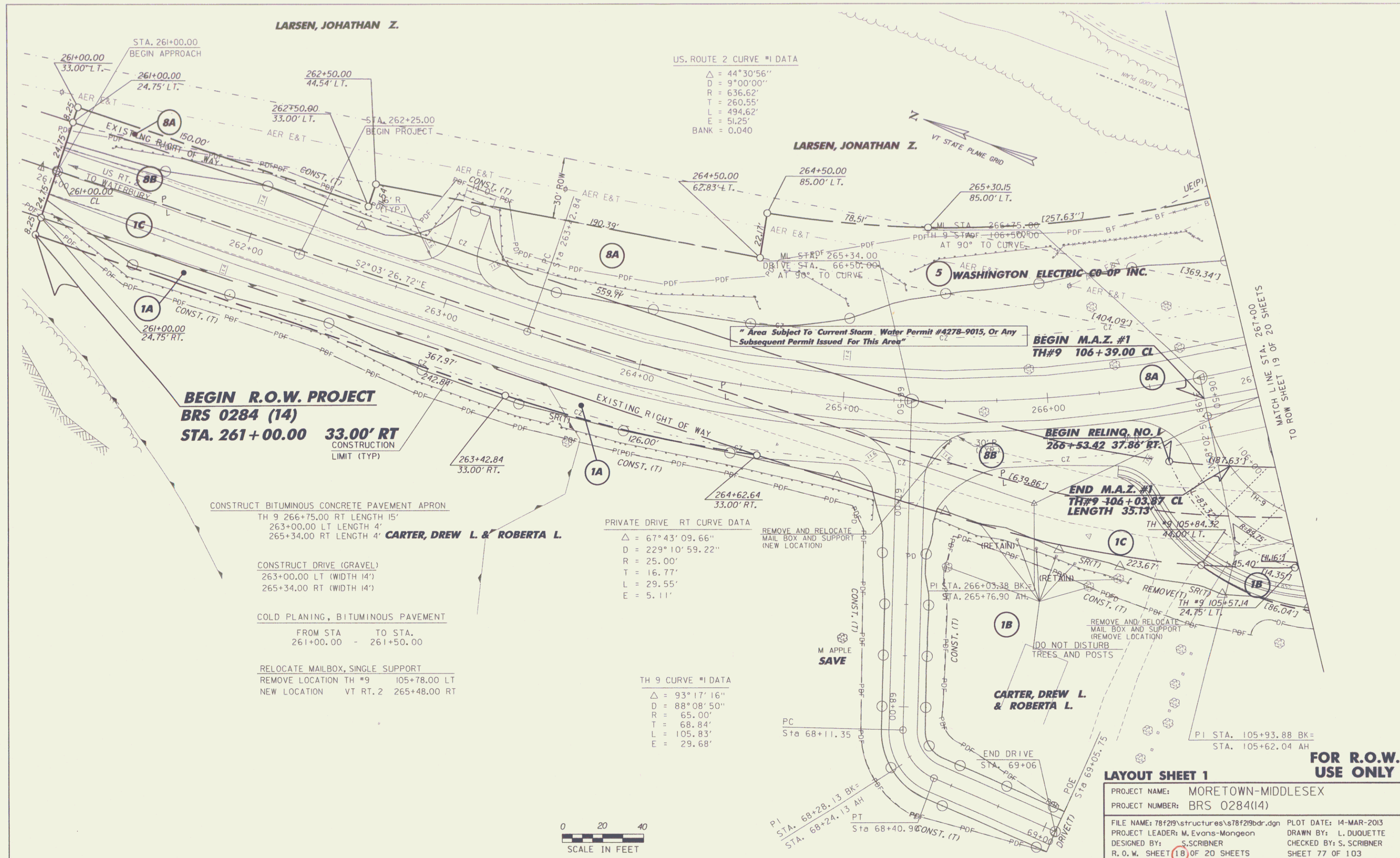


APPROVED: HARRY PETROVS, DATE: 06-23-08
CHIEF, PLANS & TITLES

PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78F219ENGROWDETAILSHEE PLOT DATE: Date
PROJECT LEADER: M. EVANS-MONGEON DRAWN BY: 0
DESIGNED BY: L. RUSSELL CHECKED BY: 0
R.O.W. SHEET 16 of 20 SHEET 75 OF 103

PLOT DATE 11/07/12



**BEGIN R.O.W. PROJECT
BRS 0284 (14)
STA. 261+00.00 33.00' RT
CONSTRUCTION
LIMIT (TYP)**

CONSTRUCT BITUMINOUS CONCRETE PAVEMENT APRON
TH 9 266+75.00 RT LENGTH 15'
263+00.00 LT LENGTH 4'
265+34.00 RT LENGTH 4' **CARTER, DREW L. & ROBERTA L.**

CONSTRUCT DRIVE (GRAVEL)
263+00.00 LT (WIDTH 14')
265+34.00 RT (WIDTH 14')

COLD PLANING, BITUMINOUS PAVEMENT
FROM STA. TO STA.
261+00.00 - 261+50.00

RELOCATE MAILBOX, SINGLE SUPPORT
REMOVE LOCATION TH #9 105+78.00 LT
NEW LOCATION VT RT. 2 265+48.00 RT

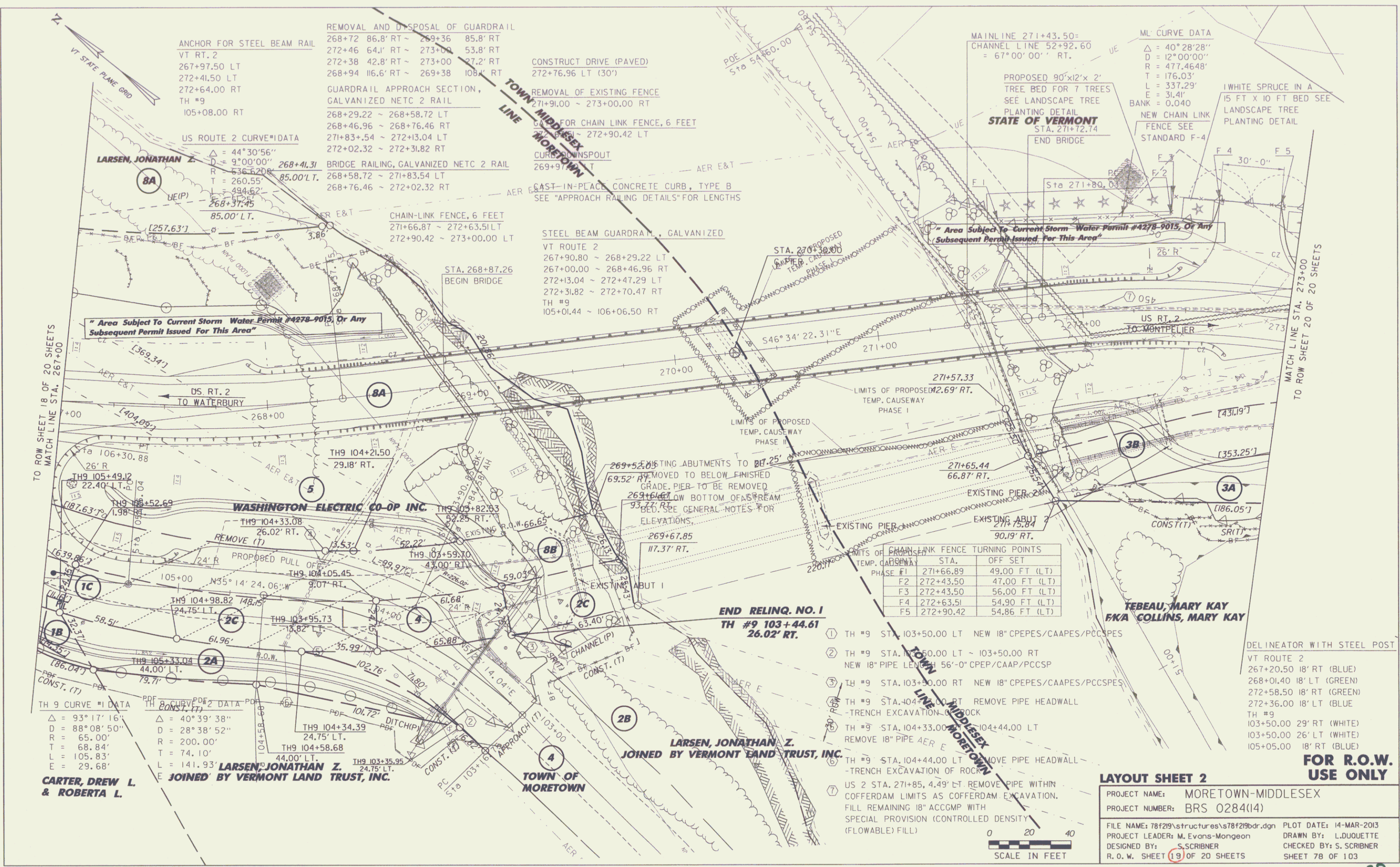
PRIVATE DRIVE RT CURVE DATA
Δ = 67° 43' 09.66"
D = 229' 10' 59.22"
R = 25.00'
T = 16.77'
L = 29.55'
E = 5.11'

TH 9 CURVE #1 DATA
Δ = 93° 17' 16"
D = 88° 08' 50"
R = 65.00'
T = 68.84'
L = 105.83'
E = 29.68'

0 20 40
SCALE IN FEET

LAYOUT SHEET 1
PROJECT NAME: MORE TOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)
FILE NAME: 78f29\structures\78f29bdr.dgn PLOT DATE: 14-MAR-2013
PROJECT LEADER: M. Evans-Mongeon DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER CHECKED BY: S. SCRIBNER
R. O. W. SHEET (18) OF 20 SHEETS SHEET 77 OF 103

FOR R.O.W. USE ONLY



ANCHOR FOR STEEL BEAM RAIL
VT RT. 2
267+97.50 LT
272+41.50 LT
272+64.00 RT
TH #9
105+08.00 RT

US ROUTE 2 CURVE #1 DATA
Δ = 44°30'56"
D = 9°00'00" 268+41.31
R = 636.6200 85.00' LT.
T = 260.55'
L = 494.62'
E = 268+37.45
B = 85.00' LT.

REMOVAL AND DISPOSAL OF GUARDRAIL
268+72 86.8' RT ~ 269+36 85.8' RT
272+46 64.1' RT ~ 273+00 53.8' RT
272+38 42.8' RT ~ 273+00 57.2' RT
268+94 116.6' RT ~ 269+38 108.4' RT

GUARDRAIL APPROACH SECTION,
GALVANIZED NETC 2 RAIL
268+29.22 ~ 268+58.72 LT
268+46.96 ~ 268+76.46 RT
271+83+.54 ~ 272+13.04 LT
272+02.32 ~ 272+31.82 RT

REMOVAL OF EXISTING FENCE
271+91.00 ~ 273+00.00 RT
CONSTRUCT DRIVE (PAVED)
272+76.96 LT (30')

BRIDGE RAILING, GALVANIZED NETC 2 RAIL
268+58.72 ~ 271+83.54 LT
268+76.46 ~ 272+02.32 RT

CHAIN-LINK FENCE, 6 FEET
271+66.87 ~ 272+63.51 LT
272+90.42 ~ 273+00.00 LT

CAST-IN-PLACE CONCRETE CURB, TYPE B
SEE "APPROACH RAILING DETAILS" FOR LENGTHS

STEEL BEAM GUARDRAIL, GALVANIZED
VT ROUTE 2
267+90.80 ~ 268+29.22 LT
267+00.00 ~ 268+46.96 RT
272+13.04 ~ 272+47.29 LT
272+31.82 ~ 272+70.47 RT
TH #9
105+01.44 ~ 106+06.50 RT

REMOVING ABUTMENTS TO BE
REMOVED TO BELOW FINISHED
GRADE. PIER TO BE REMOVED
BELOW BOTTOM OF STREAM
BED. SEE GENERAL NOTES FOR
ELEVATIONS.

EXISTING ABUT I
EXISTING ABUT II
EXISTING ABUT III

EXISTING PIER
EXISTING PIER
EXISTING PIER

LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE I
LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE II

LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE I
LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE II

LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE I
LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE II

LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE I
LIMITS OF PROPOSED TEMP. CAUSEWAY
PHASE II

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

PROPOSED 90'x12'x 2'
TREE BED FOR 7 TREES
SEE LANDSCAPE TREE
PLANTING DETAIL
STATE OF VERMONT
STA. 271+72.74
END BRIDGE

ML CURVE DATA
Δ = 40°28'28"
D = 12°00'00"
R = 477.4648'
T = 176.03'
L = 337.29'
E = 31.41'
BANK = 0.040

WHITE SPRUCE IN A
15 FT X 10 FT BED SEE
LANDSCAPE TREE
PLANTING DETAIL

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

NEW CHAIN LINK
FENCE SEE
STANDARD F-4

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

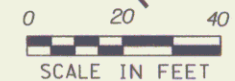
DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

DELINEATOR WITH STEEL POST
VT ROUTE 2
267+20.50 18' RT (BLUE)
268+01.40 18' LT (GREEN)
272+58.50 18' RT (GREEN)
272+36.00 18' LT (BLUE)
TH #9
103+50.00 29' RT (WHITE)
103+50.00 26' LT (WHITE)
105+05.00 18' RT (BLUE)

PHASE	STA.	OFF SET
F1	271+66.89	49.00 FT (LT)
F2	272+43.50	47.00 FT (LT)
F3	272+43.50	56.00 FT (LT)
F4	272+63.51	54.90 FT (LT)
F5	272+90.42	54.86 FT (LT)

- ① TH #9 STA. 103+50.00 LT NEW 18" CPEPES/CAAPES/PCCSPES
- ② TH #9 STA. 103+50.00 LT NEW 18" PIPE LENGTH 56'-0" CPEP/CAAP/PCCSP
- ③ TH #9 STA. 103+50.00 RT NEW 18" CPEPES/CAAPES/PCCSPES
- ④ TH #9 STA. 104+44.00 RT REMOVE PIPE HEADWALL - TRENCH EXCAVATION OF ROCK
- ⑤ TH #9 STA. 104+33.00 RT REMOVE 18" PIPE AER E
- ⑥ TH #9 STA. 104+44.00 LT REMOVE PIPE HEADWALL - TRENCH EXCAVATION OF ROCK
- ⑦ US 2 STA. 271+85.49 LT REMOVE PIPE WITHIN COFFERDAM LIMITS AS COFFERDAM EXCAVATION. FILL REMAINING 18" ACCOMP WITH SPECIAL PROVISION (CONTROLLED DENSITY (FLOWABLE) FILL)



LAYOUT SHEET 2

PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78f219\structures\78f219bdr.dgn PLOT DATE: 14-MAR-2013
PROJECT LEADER: M. Evans-Mongeon DRAWN BY: L. DUQUETTE
DESIGNED BY: S. SCRIBNER CHECKED BY: S. SCRIBNER
R.O.W. SHEET 19 OF 20 SHEETS SHEET 78 OF 103

Original Drawing - Ink on polyester meeting the requirements of 27 V.S.A. §1403

